

PAN-PACIFIC CONFERENCE XXXIV

DESIGNING NEW BUSINESS MODELS IN DEVELOPING ECONOMIES

MAY 29-31, 2017 LIMA, PERU

Edited by
Sang M. Lee
Vincent Charles

Publication of the Pan-Pacific Business Association

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ISBN: 1-931649-27-7

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A Message from the Program Chair

This publication represents the Proceedings of the 34th Annual Pan-Pacific Conference being held in Lima, Peru May 29-31, 2017. The Pan-Pacific Conference has served as an important forum for the exchange of ideas and information for promoting understanding and cooperation among the peoples of the world since 1984. Last year, we had a memorable conference in Miri, Malaysia, in cooperation with Curtin University Sarawak, under the theme of “Building a Smart Society through Innovation and Co-creation.” Professor Pauline Ho served as Chair of the Local Organizing Committee, with strong leadership support of Pro Vice-Chancellor Professor Jim Mieniczakowski and Dean Jonathan Winterton.

This year, we are in Lima, Peru, a beautiful country with long history and culture (of course the famed Machu Picchu). The conference will be in cooperation with CENTRUM Graduate Business School, Pontificia Universidad Catolica del Peru. The conference theme “Designing New Business Models in Developing Economies” is most appropriate for many developing countries in Latin America. Innovative ideas and business models to create jobs for economic development through entrepreneurship, human resource management, international trade and tourism are major topics of the program.

We would like to express our profound appreciation to many people who made this year’s Lima Conference a reality. I would like to single out the following individuals: Professor Dr. Fernando A. D’Alessio, Director General of CENTRUM, Dr. V. Charles, Dr. Ricardo Pino, Dr. Leopoldo Arias-Bolzmann, and Mr. Alvaro Morales.

We are sure that this year’s conference in Lima will be another special experience for our participants. The 35th Annual PPC will be held in Seoul, Korea. This conference will be a special commemorative conference celebrating 35 years of the Pan-Pacific Business Association. Stay tuned for the next year’s conference in Seoul, a beautiful high tech city.

Pan-Pacific Conference Peer Review Process

All papers for the conference are submitted electronically through the Pan-Pacific Conference website (<http://www.panpacificbusiness.org>) by the designated deadline. All submitted papers are double blind reviewed by two experts in the field of business. Each submission is reviewed for (1) relevance to the conference theme; (2) quality of the paper in terms of its theoretical foundation and significance of the topic; and (3) appropriateness of the methodology used. The submission is judged to be Accepted, Rejected, or in need of Revision. For those needing revision, the author is notified of the reviewers’ suggestions and encouraged to submit the final paper with appropriate changes. All accepted paper submissions in the appropriate format are published in the Proceedings of the conference in condensed versions to allow for a reasonable size publication.

Sang M. Lee, Program Chair

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D. Clay Whybark, University of North Carolina, USA

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The Pan-Pacific Business Association

The Pan-Pacific Business Association (PPBA) emerged from two U.S. – Japan Business Conferences held at the University of Nebraska-Lincoln in 1981 and Tokyo, Japan, in 1983. These Conferences led to the formation of PPBA in 1984 with the first PPBA Conference being held in Hawaii that same year.

The basic goal of PPBA is to provide a forum for scholars, executives, and government officials from Pacific Rim countries to discuss important issues relating to a better quality of life in this region. Emphasis has been placed on more effective utilization of human resources, technology, and multilateral economic activities across the borders.

The primary focus of PPBA has been its annual international conference, which usually attracts participants from more than 30 countries. The conferences have been held in such locations as Honolulu, Seoul, Taipei, Singapore, Sydney, Kuala Lumpur, Calgary, Beijing, Bangkok, Dunedin-Queenstown, Chiba, Fiji, The Gold Coast, Viña Del Mar, Anchorage, Shanghai, Busan, San José, Shenzhen, Bali, Daejeon, Haikou, Johannesburg, Sakai City, Hanoi and Miri.

The objectives of the PPBA are:

- To provide business scholars, executives, and government officials from the Pacific countries an opportunity to discuss industrial and trade policies of their respective countries.

- To help management scholars and practitioners assess the adaptability of various new management approaches to their own business environments. Emphasis is placed on networked organizations, productivity improvement, quality management, employee empowerment, modern technology-based management systems, innovation and world-class organizations.

- To help business practitioners and scholars gain an understanding of the socio-cultural background of the economies and businesses in various Pacific countries.

- To facilitate the development of research and the exchange of ideas for promoting international economic activities in the Pacific region and beyond.

- To assist in the establishment of export education programs through cooperative arrangements with regional and world trade centers and bilateral and multilateral trade associations.

For additional information on PPBA, please contact us at: <http://www.panpacificbusiness.org>

PAN-PACIFIC CONFERENCE XXXIV

MONDAY, MAY 29, 2017

ACTIVITIES AND EVENTS

08:30 - 16:00 Tour - Opportunities Available

15:00 – 17:30 Registration desk is open for the Pan-Pacific Conference **Lima Hilton**

18:40 **Buses leave Lima Hilton**

19:30 - 21:00 The Welcome Reception and Cultural Show
Dama Juana Restaurant, Av. Republica de Panama 230, Barranco

Welcome: Ricardo Pino, Director of Research, CENTRUM GBS, Peru

TUESDAY, MAY 30, 2017

MORNING

07:15 **Buses leave Lima Hilton for CENTRUM**

07:30 – 10:00 Conference Registration **CENTRUM**

08:30 - 10:00 Opening Plenary Session **Auditorium**

Welcome Speech

Vincent Charles, Director of Research (International Affairs), CENTRUM GBS, Peru

Opening Address

Sang M. Lee, President of PPBA, University of Nebraska-Lincoln, USA

Keynote Speeches

Mr. Masahiro Takagi, Minister-Counselor of the Embassy of Japan in Peru
Dr. D. Clay Whybark, Distinguished University Professor
University of North Carolina-Chapel Hill, USA

10:00 - 10:30 Coffee Break **Cafeteria**

10:30 - 12:00 Plenary Panel **Auditorium**
Digital Transformation and New Innovation Models
Moderator: Sang M. Lee, University of Nebraska-Lincoln, USA
Den H. Hooi, Nanyang Technological University, Singapore
Gerhard Roodt, University of Johannesburg, South Africa

12:00 - 13:30 Luncheon Program **Cafeteria**

SESSION AT A GLANCE

Tuesday Sessions at CENTRUM

TUESDAY, MAY 30, 2017

AFTERNOON

13:30 - 15:00

Concurrent Sessions

SESSION CODE	TP11	TP12	TP13	TP14	TP15
ROOM	201	202	204	205	207-208
SESSION TOPIC	Entrepreneur and Family Business	Research in Organization Science	Psychology at Work Place	Current Research in Human Resources	Quality Management Issues

15:00 - 15:30

Coffee Break

Cafeteria

15:30 - 17:00

Concurrent Sessions

SESSION CODE	TP21	TP22	TP23	TP24	TP25
ROOM	201	202	204	205	207-208
SESSION TOPIC	Global Business Issues	Research in Int'l Marketing and Trade	Research in Psychological Capital	Tourism and Hospitality	Issues in ICT Applications

WEDNESDAY, MAY 31, 2017

MORNING

Wednesday Sessions at Lima Hilton Hotel

08:30 - 10:00

Concurrent Sessions

SESSION CODE	WA11	WA12	WA13	WA14	WA15
ROOM	Alpamayo 1	Alpamayo 2	Alpamayo 3	Ausangate	Salkantay
SESSION TOPIC	Risk and Bullying Management	Business Ethics	Supply Chain Management	Tourism in Action	Project & Supply Chain Management

10:00 - 10:30

Coffee Break

Foyer

10:30 - 12:00

Concurrent Sessions

SESSION CODE	WA21	WA22	WA23	WA24	WA25
ROOM	Alpamayo 1	Alpamayo 2	Alpamayo 3	Ausangate	Salkantay
SESSION TOPIC	Challenges in Public Organizations	Opportunities in International Business	Advances in ICT and Education	Research in Production/Service Management	Strategy and Business Models

12:00 - 13:30 President's Luncheon Program

Terrace

Award Presentations

The 2018 Pan-Pacific Conference Site Presentation

WEDNESDAY, MAY 31, 2017

AFTERNOON

13:30 - 15:00

Concurrent Sessions

SESSION CODE	WP11	WP12	WP13	WP14
ROOM	Alpamayo 1	Alpamayo 2	Alpamayo 3	Ausangate
SESSION TOPIC	Research on Latin America	International Finance	Strategic Management	Issues in Human Resources

15:00 - 15:30

Coffee Break

Foyer

15:30 - 17:00

Concurrent Sessions

SESSION CODE	WP21	WP22	WP23
ROOM	Alpamayo 1	Alpamayo 2	Alpamayo 3
SESSION TOPIC	Strategies for Economic Developmen t	Small and Medium Enterprises	Research In Sustainability

CONFERENCE CLOSES

Thank you for your participation in the 34th Annual Pan-Pacific Conference! We hope to see you at next year's conference in Seoul, South Korea!

Pan-Pacific Conference XXXIV Program

Schedule Code

May 30, 2017

TP1 1-5 = Tuesday, 13:30 - 15:00

TP2 1-5 = Tuesday, 15:30 - 17:00

May 31, 2017

WA1 1-5 = Wednesday, 08:30 - 10:00

WA2 1-5 = Wednesday, 10:30 - 12:00

WP1 1-5 = Wednesday, 13:30 - 15:00

WP2 1-5 = Wednesday, 15:30 - 17:00

TP11 Entrepreneurship and Family Business

Room 201

Chair: Dianne H.B. Welsh, University of North Carolina-Greensboro, USA

Women Entrepreneurs and Family Firm Heterogeneity: Evidence from an Emerging Economy

Dianne H.B. Welsh, University of North Carolina-Greensboro, USA

Silvana Trimi, University of Nebraska-Lincoln, USA

Eugene Kaciak, Brock University, USA

Emerson Wagner Mainardes, FUCEPE Business School, Brazil

Financial Performance of Family Businesses with Corporate Governance Practices of the Ownership

Jose Bernardo Betancourt Ramirez, CENTRUM Pontificia Universidad Catolica del Peru,

Peru

Cross-Disciplinary Education: Not Business as Usual

Bonnie F. Canziani, University of North Carolina-Greensboro, USA

Dianne H.B. Welsh, University of North Carolina-Greensboro, USA

William Tullar, University of North Carolina-Greensboro, USA

TP12 Research in Organization Science

Room 202

Chair: Ricardo Pino, CENTRUM GBS, Pontificia Universidad Catolica del Peru, Peru

Attitudes Towards Servant Leadership in MBA Students

Ricardo M. Pino, CENTRUM GBS, Pontificia Universidad Catolica del Peru, Peru

The Effect of Union Membership on Turnover Intentions Following Psychological Contract Breach and Violation

Pharny Chrysler-Fox, University of Johannesburg, South Africa

A Representative Emotions Inventory for Spanish-speaking Population Research

Jose Antonio Espinoza, CENTRUM GBS, Pontificia Universidad Catolica del Peru, Peru

Investigating the Effect of Employee Engagement on Performance in the Petrochemical Industry

Herman D. Boikanyo, University of Johannesburg, South Africa

TP13 Psychology at Work Place

Room 204

Chair: Gerhard Roodt, University of Johannesburg, South Africa

Threshold Effects of Psychological Contract Breach

Pharny Chrysler-Fox, University of Johannesburg, South Africa

Gerhard Roodt, University of Johannesburg, South Africa

The Adverse Effect of Psychological Contract Breach on Psychological Capital

Mary Zondi, University of Johannesburg, South Africa
Ilze Botes, University of Johannesburg, South Africa
Patiance Kodibona, University of Johannesburg, South Africa
Debrah Ramurundo, University of Johannesburg, South Africa
Mmadithame Monama, University of Johannesburg, South Africa
Rene Van Wyk, University of Johannesburg, South Africa

Does Psychological Capital Play a Role in the Prediction of Team Altruism?

Hemisha Naik, University of Johannesburg, South Africa
Simphele Mkwana, University of Johannesburg, South Africa
Oarabile Malatse, University of Johannesburg, South Africa
Neo Ntehelang, University of Johannesburg, South Africa
Rene Van Wyk, University of Johannesburg, South Africa

TP14 Current Research in Human Resources

Room 205

Chair: Chong W. Kim, Marshall University, USA

The Key Characteristics of Necessity: Comparison Between Students and Employees Data

Chong W. Kim, Marshall University, USA
Jennifer Y. Mak, Marshall University, USA

Job Calling, Work Identity & Job Crafting: A Theoretical Paper

Roslyn De Braine, University of Johannesburg, South Africa

A Content Analysis of the HR Skills in High Demand

Mpho D. Magau, University of Johannesburg, South Africa

i-Deal, i-Craft, i-Perform: A Theoretical Framework

Nelesh Dhanpat, University of Johannesburg, South Africa

TP15 Quality Management Issues

Room 207-208

Chair: Vincent Charles, CENTRUM GBS, Pontificia Universidad Catolica del Peru, Peru

Productive Efficiency of Water Utilities Accounting for Service Quality

Guillermo Diaz, CENTRUM GBS, Pontificia Universidad Catolica del Peru, Peru
Vincent Charles, CENTRUM GBS, Pontificia Universidad Catolica del Peru, Peru

Proactive Three-Tier Supply Chain Incentive Strategies for Quality Improvement

Seung Ho Yoo, Sunmoon University, South Korea
DaeSoo Kim, Korea University Business School, South Korea
Thomas Choi, Arizona State University, USA

The Effectiveness of Customer Service Training Interventions: A Systematic Review of the Literature

Praneschen Govender, University of Johannesburg, South Africa
Anna Meyer-weitz, University of KwaZulu-Natal, South Africa

Application of Multiple Criteria Data Envelopment Analysis Combined with the Overall Equipment Effectiveness in a Brazilian Automotive Company

Fernando Augusto Silva Marins, Sao Paulo State University, Brazil
Aneirson Francisco da Silva, Sao Paulo State University, Brazil
Patricia Miyuki Tamura, Sao Paulo State University, Brazil
Erica Ximenes Dias, Sao Paulo State University, Brazil

TP21 Global Business Issues**Room 201**

Chair: Gregory J. Scott, CENTRUM GBS, Pontificia Universidad Catolica del Peru, Peru

Not by Bread Alone: Estimating Alternative Future Scenarios for Asian Food Systems
Gregory J. Scott, CENTRUM GBS, Pontificia Universidad Catolica del Peru, Peru
Athanasios Petsakos, International Potato Center, Peru
Henry Juarez, International Potato Center, Peru

Historiography of Concept of “Glocal”
Nina Murayama, Tamagawa University, Japan

The Nature of Competition within the Motor-Vehicle Industry
Yaaseen Seedat, University of Johannesburg, South Africa
Jean-Marie Mbuya, University of Johannesburg, South Africa
Maria Bounds, University of Johannesburg, South Africa

The Collaboration with Infrastructure Business and Local Culture
Takuya Tsubota, Tsubota Planning LLC, Japan

TP22 Research in International Marketing and Trade**Room 202**

Chair: Den Huan Hooi, Nanyang Technological University, Singapore

Conceptual Development of Marketing: An Ex-ante and Ex-post Perspective
Den Huan Hooi, Nanyang Technological University, Singapore
Chew Yoong Wan, Nanyang Technological University, Singapore

The Rise of Populism in the West and Its Impact on Free Trade
Anoosha Makka, University of Johannesburg, South Africa

Relationship Between Logistics and Trade: A South African Ecological Study
Noleen M. Pisa, University of Johannesburg, South Africa
Rose Luke, University of Johannesburg, South Africa

TP23 Research in Psychological Capital**Room 204**

Chair: Rene Van Wyk, University of Johannesburg, South Africa

Does Team Altruism Enhance PsyCap?
Rene Van Wyk, University of Johannesburg, South Africa

Uncovering the Beauty of the Capital Nature of PsyCap: A Financial Perspective
Weixing Li, BICANB Consulting, USA

The Wave of Psychological Capital: Japan Study Update
Yoshie Kubota, Jissen Women's University, Japan

TP24 Tourism and Hospitality**Room 205**

Chair: Leopoldo Arias-Bolzmann, CENTRUM GBS, Pontificia Universidad Catolica del Peru, Peru

Link Between Customer Service and Loyalty in Four-Star Hotels in a Developing Economy
Leopoldo Arias-Bolzmann, CENTRUM GBS, Pontificia Universidad Catolica del Peru, Peru
Karina Bravo-Falcon, CENTRUM GBS, Pontificia Universidad Catolica del Peru, Peru
Patricia Mendoza-Cabrera, CENTRUM GBS, Pontificia Universidad Catolica del Peru, Peru

An Exploratory Study Regarding Moderating Effects of Festival Quality on the Relationship Between
Tourism Experience and Tourism Satisfaction
Sang Jun Kim, Kindai University, Japan

Sake Branding Strategy: Securing Necessary Ingredients and Attracting Customers/Inbound Tourists through Storytelling

Yongsook Lee, Kansai University of International Studies, Japan

Shigeki Matsumoto, Kansai University of International Studies, Japan

Shigehito Matsubara, Kansai University of International Studies, Japan

TP25 Issues in ICT Applications

Room 207-208

Chair: Kyung Hoon Yang, University of Wisconsin-La Crosse, USA

Can Ethics Be Used as a Tool of Information Security Management?

Kyung Hoon Yang, University of Wisconsin-La Crosse, USA

Young-Chan Lee, Dongguk University, South Korea

Defensive Reactions as Potential Reasons for IT Project Management Failures

Carl Marnewick, University of Johannesburg, South Africa

Gerhard Roodt, University of Johannesburg, South Africa

A Study on the IoT-based Fleet Maintenance Considering the Parts Reliability

Kangbae Lee, Dong-A University, South Korea

Doo-hwan Kim, Dong-A University, South Korea

Hyung Rim Choi, Dong-A University, South Korea

Byung Kwon Park, Dong-A University, South Korea

Min Je Cho, Dong-A University, South Korea

Seong Ho Park, Dong-A University, South Korea

WA11 Risk and Bullying Management

Alpamayo 1

Chair: Rick Shaw, Awareity, USA

Community Preventing and First Preventers: Completely Changing How Organizations and Communities Prevent

Rick Shaw, Awareity, USA

Aggression and Bullying Attributes and Consequences for the Organisation and Individuals in the Workplace: A Meta-Synthesis of Qualitative Studies

R. Ronel Toerien, University of Johannesburg, South Africa

Gerhard Roodt, University of Johannesburg, South Africa

The Role of Factory Facilities on Safety Risk Management in the Working Conditions in Sewing Co-operatives

Michael Sizwe Mkwana, University of Johannesburg, South Africa

Charles Mbohwa, University of Johannesburg, South Africa

WA12 Business Ethics

Alpamayo 2

Chair: Maria Bounds, University of Johannesburg, South Africa

A Manager's Personal Value System and the Influence it has on Organisational Ethics

John Anderson, University of Johannesburg, South Africa

Lizel Solomon, University of Johannesburg, South Africa

Jean-Marie Mbuya, University of Johannesburg, South Africa

Maria Bounds, University of Johannesburg, South Africa

Law, Ethics and Business - How Companies Gain Trust through Websites?
Miyuki Tsuyuki, University Faculty of Law, Japan

Students' Perception of the Position of Ethics within an Organisation
Christa C. Yassa, University of Johannesburg, South Africa
Maria M. Bounds, University of Johannesburg, South Africa
Geoff A. Goldman, University of Johannesburg, South Africa

WA13 Supply Chain Management

Alpamayo 3

Chair: Dinesh Dave, Appalachian State University, USA

Consumer Awareness of Supply Chain Management Flows: Intercultural Differences Between Consumers in Thailand and the United States

Dinesh Dave, Appalachian State University, USA
Michael Dotson, Appalachian State University, USA
James Stoddard, Appalachian State University, USA
Adisak Suvittawatt, Burapha University, Thailand

Applications of Supplier Governance Mechanisms: An International Study

Chenlung Yang, Chung-Hua University, Taiwan
Shuping Lin, Chung-Hua University, Taiwan
Chwen Sheu, Kansas State University, USA

Climate Change in Lean Supply Chains

DonHee Lee, Inha University, South Korea
Youn Sung Kim, Inha University, South Korea

WA14 Tourism in Action

Ausangate

Chair: Meiko Murayama, University of Reading, United Kingdom

Rural Tourism: Experience, Anticipation and Business Development

Meiko Murayama, University of Reading, United Kingdom
Gavin Parker, University of Reading, United Kingdom

A Study on Tourism Destination's Efforts in Toyooka City, Japan

Shigeki Matsumoto, Kansai University of International Studies, Japan
Yongsook Lee, Kansai University of International Studies, Japan

Study Related to Factors Causing Foreign Tourists from South East Asia to Select Okinawa – A Case Study of Taiwan

Naohisa Kakutani, MEIO University, Japan

Strengthen Vietnam-Italy Tourism: Towards a New Era

Tuyet Giang Tran, LUISS Guido Carli University, Italy
Atsuto Nishio, Takushoku University, Japan

WA15 Project and Supply Chain Management

Salkantay

Chair: Avraham Shtub, Technion Israel Institute of Technology, Israel

Planning of the Fuzzy Front End of Projects

Michal Iluz, Rafael Advanced Defense Systems Ltd., Israel
Avraham Shtub, Technion Israel Institute of Technology, Israel

The Failure of Transport Megaprojects: Lessons from Developed and Developing Countries
Rose Luke, University of Johannesburg, South Africa
Chris Savage, University of Huddersfield, United Kingdom
Andrew Jenkins, University of Huddersfield, United Kingdom
Logan Fransman, Namibia University of Science and Technology, Namibia

Delivering the Required Supply Chain Management Skills in Developing Economies
Rose Luke, University of Johannesburg, South Africa
Gert Heyns, University of Johannesburg, South Africa

WA21 Challenges in Public Organizations

Alpamayo 1

Chair: Narendra Reddy, University of Fiji, Fiji

Public Sector Reform: The Case of Fiji Ports Corporation Limited
Narendra Reddy, University of Fiji, Fiji
Roneel Reetesh Prakash, University of Fiji, Fiji

Information Technology Project Failure at South African State Owned Enterprises
Tsholofelo Rantsoa, University of Johannesburg, South Africa
Wikus Erasmus, University of Johannesburg, South Africa

A Study on the Co-Occurrences Structure Map for Civil Petitions Corpus in Busan
Hayeong Jeong, Dong-A University, South Korea
Tai Hun Lee, Dong-A University, South Korea
Soon-Goo Hong, Dong-A University, South Korea

A Big Data Processing of Anxiety and Management of Crisis Communication
Hayeong Jeong, Dong-A University, South Korea
Tai Hun Lee, Dong-A University, South Korea
Jeeyoung Jung, Dong-A University, South Korea

WA22 Opportunities in International Business

Alpamayo 2

Chair: Dave Flynn, Hofstra University, USA

Sustainable Development and Palm Oil Production
Dave Flynn, Hofstra University, USA

Deployment of Japanese Companies to Asian Countries: In the Case of Vietnam
Atsuto Nishio, Takushoku University, Japan

Cooperation Between Latin America and Asia-Pacific in the Context of APEC: Opportunities and Challenges
Raul Hopkins Larrea, CENTRUM GBS, Pontificia Universidad Catolica del Peru, Peru

The Role of Institutions and Strategic Resources in the Emergence of Multilatinas
Fernando Garcia, Dalton State College, USA
Marilyn Helms, Dalton State College, USA
Raina M. Rutti, Dalton State College, USA

WA23 Advances in ICT and Education

Alpamayo 3

Chair: Paul Laughton, University of Johannesburg, South Africa

Web 2.0 Tools for Virtual Reference Services in a University Library
Jakobina Mwiyale, University of Johannesburg, South Africa
Paul Laughton, University of Johannesburg, South Africa

Strategizing Management Education in Response to Artificial Intelligence
Daneel Van Lill, University of Johannesburg, South Africa
Jane Spowart, University of Johannesburg, South Africa

Information Overload and Perceived Productivity Amongst Tertiary Students
Nomathamsanqa Mangaye, University of Johannesburg, South Africa
Lebohang Mojapelo, University of Johannesburg, South Africa
Thando Mthethwa, University of Johannesburg, South Africa
Paul Laughton, University of Johannesburg, South Africa

WA24 Research in Production/Service Management

Ausangate

Chair: Lisa H. Hata, Office H Consulting, Japan

Circulation Type Farm Waste Management System Environmentally Friendly and Economical IPC System
Lisa H. Hata, Office H Consulting, Japan

An Empirical Analysis of Promotion Standards in the Operations Management Discipline of UK Academic Institutions
Andreas C. Soteriou, University of Cyprus, Cyprus
George C. Hadjinicola, University of Cyprus, Cyprus
Georgia Katsifaraki, University of Cyprus, Cyprus

Supply Chain Materials Flow and the Use of Information Technology
Dinesh Dave, Appalachian State University, USA
Sandra Vannoy, Appalachian State University, USA
Ken Corley, Appalachian State University, USA

WA25 Strategy and Business Models

Salkantay

Chair: Tomihisa Ito, Ito Consultancy on Airline Business, Japan

A Study of Airline's Ancillary Revenue Growth Strategy in the Society of Technologically-savvy Travelers
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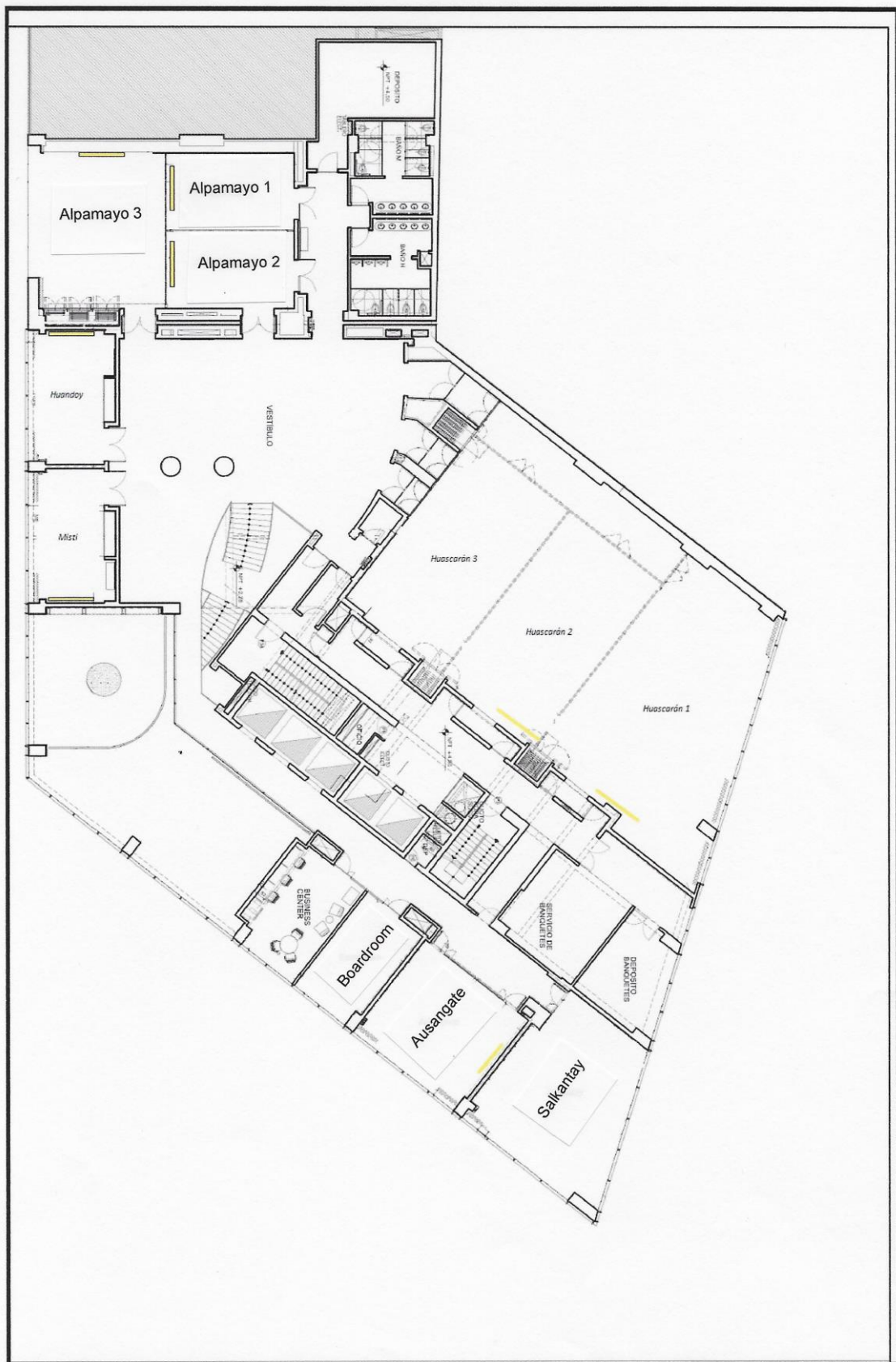
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Meeting Rooms at Lima Hilton



Women Entrepreneurs and Family Firm Heterogeneity: Evidence from an Emerging Economy

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ABSTRACT

Family firms add to the economic and social well-being of countries. While research on heterogeneity of family firms is gaining momentum, it has mostly been gender-neutral. The study fills this gap by examining heterogeneity of family firms owned and managed by women, in the context of a developing country – Brazil. The study draws upon the resource-based view of the firm to investigate the relationships between firm performance, family involvement, and financial resources at the start-up phase.

INTRODUCTION

Family firms continue to play a significant role in the global economy [5]. There is still a paucity of research addressing heterogeneity of family firms owned and managed specifically by women entrepreneurs [10]. The increasing involvement of women in family businesses, and the heterogeneity of women entrepreneurs have not been explored to a great extent [7]. This is surprising as female entrepreneurs are recognized as important for economic growth, innovation, and job creation worldwide [12].

The gender-neutral heterogeneity of family firms has been addressed in extant literature along a number of dimensions, such as family involvement, goals, and resources [4]. This study investigates two of these dimensions: family involvement and resources in relation to firm performance. These two aspects are considered some of the most important factors shaping women entrepreneurial processes [7].

THEORETICAL BACKGROUND

This study uses the resource based view (RBV) of the firm as its theoretical framework to investigate factors shaping the performance of family and nonfamily firms owned and managed by women entrepreneurs [3][1].

This study focuses on a specific type of resource – the financial capital needed at the start of a business

venture. It considers two ways a woman entrepreneur could choose for funding her business: either using her own savings or borrowing from others (i.e., getting loans from nonrelatives or institutions).

THE BRAZILIAN CONTEXT

In Brazil, 70 percent of women-owned businesses are SMEs operating without any other employees and none report having more than 25 percent of their customers from other countries [11]. This may be because Brazil ranks at 123 out of 189 economies on the ease of trading across borders [19]. The large and fast-growing domestic market in Brazil as well as cultural factors (i.e., language differences with neighboring countries) may partially explain this phenomenon. Other contributing factors include inadequate infrastructure and trade resources.

Brazil is a patriarchal country. According to the OECD, among the women holding university degrees, the employment rate was 81.5 percent [15]. However, Brazil has one of the highest earnings gap between men and women.

METHOD

Due to the paucity of research on heterogeneity of family firms headed by women, particularly in the context of developing economies, this study uses the inductive theory building approach [13].

The Sample

The study utilized a self-administered questionnaire originally developed by Hisrich, Bowser, and Smarsh [9] with some adaptations, including three additional questions on family businesses. The questionnaire development was based on the double translation protocol [2]. One of the researchers spoke to business organizations about the study in person and urged members to complete the online survey. Of the 149 women contacted, 137 women responded, a response rate of 92%. The majority of respondents were married (66.99%), mature (30+ years of age = 81.2%), and highly educated (junior college + = 73.2%). The business types indicated most operate for the local market (retailing, food stores, etc. =

72.3%), relatively mature (3 years + = 66.7%), and woman entrepreneurs had leadership role (90.4%) and the majority ownership (67.20%), and the firms were evenly split between family business (51.3%) and non-family business (48.7%). The business was started by the woman entrepreneurs alone (50.7%) or with family members (33.0%), and mostly with own savings (88.3%).

Dependent variable

Firm Performance is the dependent variable, measured through the respondent's current business revenue.

Independent variables

Family Business Ownership coded to sort out family businesses.

Business Start-up with the Family, was coded to differentiate if the woman entrepreneur started the business with family member(s) or she started either alone or with nonrelatives [6]. Funding of Business Start-up was coded to differentiate if the woman entrepreneur started the business with her own savings or if she financed the start-up with borrowed funds from family, nonrelatives, or institutions [14].

Control variables

Business Experience was used to differentiate whether a woman entrepreneur had been in business longer than three years or otherwise [14].

Educational Level was used to indicate whether the respondent had the education level of higher than high school or otherwise. Formal education can increase women's access to knowledge that can help in launching and running a business [16].

Management Skills category was used to differentiate whether the respondent's self-rated start-up skills were good to excellent, or poor to fair [17].

The study also controlled the respondent's age, as age has an important influence on entry into entrepreneurship and subsequent stages of the business venture [16]. Age was categorized if the entrepreneur was 40 and older or otherwise.

Data analysis, propositions, and results

To explore potential heterogeneity among family firms, the study first performed a two-step cluster analysis. Its objective is to ascertain whether natural groupings (clusters) exist within the data set.

The most important predictor of the cluster membership was the category of Business Start-up with the Family, followed by Family Business Ownership.

Overall, all four models showed significant results (Model 1a: $\chi^2 = 31.45$, $p = 0.00$; Model 1b: $\chi^2 = 17.41$, $p = 0.00$; Model 2a: $\chi^2 = 23.87$, $p = 0.00$; and Model 2b: $\chi^2 = 24.70$, $p = 0.00$). The pseudo-R² values were fairly high and ranged from 0.29 (Cox and Snell R²) to 0.64 (Nagelkerke R²). In Model 1a (Family firm), the variable Business Start-up was

positively related to firm performance ($\beta = 1.972$; $p\text{-value} = 0.03$).

Proposition 1: Family firms owned and managed by Brazilian women entrepreneurs that were started with the family achieve better performance than family firms that were started without the family (i.e., either alone or with the non-relatives) and only later evolved into family businesses.

Proposition 2: Firms that were started by Brazilian women entrepreneurs without family involvement and later evolved into family firms achieve worse performance than the firms that remain nonfamily firms throughout all phases of their business development.

What renders Propositions 1 and 2 new in terms of theory of the family business is that they show it matters to have family members' involvement in business. Dyer et al. [8] called for including time-based variables in future family business studies. These researchers noted that there might be different dynamics in family firms depending on they are funded by all family members from the beginning or whether some family members are brought in later. The results of this study answer this call, in part. The results show that firms that did start with family involvement are better off when the family support continues throughout the stages of business development. Thus, Propositions 1 and 2 are in line with the work of Westhead and Howorth [19] that family firm sustainability requires, among other things, continuous family involvement. However, the study was gender-neutral. Conversely, firms that are started without family involvement should remain non-family ventures.

Proposition 3: Family firms that are owned and managed by Brazilian women entrepreneurs, that were funded by women's own savings, tend to achieve worse performance than those that were funded with borrowed funds from family, non-relatives, or institutions.

Proposition 4: Ventures that were started by Brazilian women entrepreneurs without family involvement and were funded by women's own savings tend to achieve worse performance than those funded with borrowed money from family, non-relatives, or institutions.

CONCLUSION

Combined with the economic crisis, and a traditional male-dominated society, women-owned businesses in Brazil may be facing an uphill battle to survive and prosper in their businesses. Public policymakers and economic development agencies should be taking actions to alleviate barriers to success as women-owned businesses have the ability to be a major force in improving the economic condition of the country and provide a degree of economic stability.

As the sample characteristics of this study showed, many businesses owned and/or operated by women entrepreneurs in Brazil are traditional business types

catering for the local market. In order for these businesses to grow and become a main stream economic force in the country, women entrepreneurs must transform their business models through digital transformation based on innovations such as mobile-commerce, social-commerce, artificial intelligence enabled applications, Internet of Things, collective intelligence and funding, and the like.

Such innovative business models can support operations of tourism, technology services, handicraft, and even healthcare to expand beyond the local market. Such transformational innovations will provide abundant new opportunities to Brazilian women entrepreneurs to start, grow, and harvest many successful businesses in the future.

The results of study may be useful for decision making by women entrepreneurs in emerging economies (particularly those with strong masculinity features) who currently own and manage a family business or are contemplating bringing their family members into their business. Government policies tailored to promoting women entrepreneurship should take into account that family firms cannot be simplistically viewed as a homogeneous entity.

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Financial Performance of Family Businesses with Corporate Governance Practices of the Ownership

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Introduction

This research proposal aims to explain the influence of ownership governance practices on the financial performance of family business (FB), in order to promote the implementation of the most relevant practices and prioritize efforts of FB. Corporate governance codes and national legislation promote a large number of governance practices, but in FB is necessary to identify those that most influence its financial performance, in order that shareholders focus their efforts. The question that leads this research is: To what extent do corporate governance practices of ownership influence the financial performance of Colombian FB?

Literature Review

30 years ago ownership system was incorporated into the study of FB (Davis & Tagiuri, 1982), but in the area it has been virtually ignored by scholars (Sharma, 2004). Just some authors (Aronoff & Ward, 2002; Betancourt, Gomez, & Lopez, 2011; Gomez, 2010; Jaffe & Lane, 2004) have highlighted the importance of knowing more about the ownership, its governance frameworks and strategies. Countries around the world have been inspired by the Anglo-American and the Continental European corporate governance models in order to minimize agency problems (Aguilera & Jackson, 2003), but in general is difficult the implementation of corporate governance practices in FB because the benefits are unclear.

Methodology

This study uses the Popperian epistemological method, a quantitative approach with nonparametric statistical test and explanatory scope. The study analyzes a nonrandom sample of 141 public companies listed on the National Registry of Securities and Issuers of Colombia (acronym in Spanish, RNVE) for 2012 period. To identify the relationship between variables a multiple linear regression is used with complete data of the Country Code¹. The sample was classified in FB

when three families or less have 50% of shareholder control (45% or 63 companies), if the firm does not meet this criterion was classified as non-FB (55%). The study used parametric statistical testing, it was applied a linear regression model to the nonrandom sample, assuming that the variable had a normal distribution. It works under the assumption that the sample is random, clarifying that strictly speaking is not random because the majority of the companies answer voluntarily the Country Code survey, for this reason the error could be small. Something that can significantly affect the results is that the answers are not sincere and respondents conveniently answer to the state control agency.

Research Model

This explanatory study aims to explain the influence of ownership governance practices on the FB performance. According to Jensen and Meckling, (1976) Agency Theory is useful to analyze this cause-effect relationship because in agency relationship, the agent is hired by the principal to work on its behalf, with autonomous management and in order to maximize profits, which are not always aligned. On the other hand, there are characteristics inherent to the FB nature that were explained through Stewardship Theory, for example topics related with non-financial goals (Westhead & Howorth, 2006), deep emotional investment in the family (Bubolz, 2001), shareholder personal satisfaction (motivation) and reputation (Ward, 2004). It is relevant to study FB due to its predominance in the economies of every nation (Holderness, 2009) and its contribution to the generation of employment and generation of wealth production of countries (Shanker & Astrachan, 1996). The combination of Agency and Stewardship Theory allows arguing that the Principal does not seek the maximum economic yield, the main objective is to minimize the risk of the firm. In this sense Agents which aligns their goals with the Principals will result in lower profitability compared with non-FB. The formula proposed to develop this research is: $Y = F(X_1 + X_2)$. Where Y was equal to financial performance, which was analyzed in terms of variance of ROA (Y1), X1 that was equal to the Index of Ownership Governance Practices (IOGP), and X2 that was a dummy variable about the business control which was considered as a FB if three or less families had more than 50% of shares, or otherwise was considered non-FB. The variables used in the study are described below.

Business control: Gomez-Betancourt, Lopez, Betancourt and Millan (2012) found that there are

¹ The corporate governance code for issuers in Colombia (Country Code) and its 41 practices are available at: <https://www.superfinanciera.gov.co/SFCant/Codigopais/textos/codigopias.pdf>. The country code survey is available at: <https://www.superfinanciera.gov.co/SFCant/Codigopais/anexo1.html>

three groups with performance differences: (a) firms with majority family ownership structures (family shareholding above 50%), (b) firms with minority family ownership structures (family shareholding between 10% and 50%), and (c) non-FB. This study analyzes businesses with family shareholding above 50%. Some authors (Smyrnios, Sabine, & Astrachan, 2005) have highlighted that families can exert control and power over the decisions of the company. In this research businesses were classified as FB when three or fewer families have more than 50% of shares.

Performance: In FB is studied mainly with ROA (Anderson & Reeb, 2003; Gonzalez et al., 2012; Klapper & Love, 2004). In this study the same parameter was followed.

IOGP: To measure ownership governance practices were used independent measurements for each practice and as a control mechanism was applied an index inspired in the Corporate Governance Country Code Index (IGCCP in spanish) designed by Lagos and Vecino (2014) from 41 practices of voluntary adoption defined in the Country Code, which evaluates with 80 questions on the principle "comply or explain". An assumption of the study was that survey was validated by the controlling entity because it has been applied since 2008. The IGCCP not used weighting to assess compliance of each practice, only apply one (1) when comply or zero (0) otherwise. Each survey question is linked to some practice of the Country Code, when several questions refer to the same extent, the measurement value is distributed in equal percentages, according to the number of questions that assessed. In this research were selected the practices inherent to ownership and then it was designed the index of ownership governance practices (IOGP).

According to Strätling (2003), the functions that shareholders should play are mainly keep informed on the financial performance of the company, be aware of important management decisions, exercise control over the Board of Directors and executive management, discuss past performance and build policies. Based on these guidelines were selected seven measures established in the Country Code that cover the corporate governance practices for owners. The measures were M1 (citation), M2 (Board selection and financial information), M4 (Assembly Agenda), M27 (shareholders attention), M29 (audit), M34 (Conflict resolution) and M38 (fiscal auditor). The IOGP is calculated from zero to seven, with seven as the highest score in governance practices of ownership. The null hypothesis is: there is no relationship between the IOGP in FB and profitability ($Y_0 = ROA$). The alternative hypothesis is: the higher IOGP in FB, lower profitability viewed as ROA (Y_1).

Results

According to the results obtained the null hypothesis is rejected. The regression model for ROA shows significant results ($P < 0.05$; $F = 4.39$; $R^2 = 0.06\%$, 95% Confidence), within the model, the IOGP variable was significant (< 0.05) but the influence is positive, in the case of business control,

the FB generates a negative influence as was established at the beginning.

Conclusions

The hypothesis is accepted, so, the higher corporate governance practices at the ownership level in FB, results in a lower profitability in terms of ROA. With this research is clear that FB seek to reduce the risk, although this implies to diminish the profitability of short term. Empirical support was found to affirm that exist a correlation between variables of corporate governance and financial performance.

In future research it is suggested to apply different indicators of performance because each indicator may reflect different perspectives of firm stakeholders. While one indicator may reflect the financial perspective another indicator can show socio-emotional goals that may go against financial targets in FB (Gomez-Mejia et al., 2010).

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Cross-Disciplinary Education: Not Business as Usual

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A majority of emerging economies seek to sustain residual talent embedded in local entrepreneurs, ranging from agriculture, crafts and arts all the way up to digital and technological communication. It is imperative that regions harness the collective energy and entrepreneurial skills of artisans and local business people. One way we have successfully done this is to create the cross-disciplinary program at our university so that all disciplines blend with entrepreneurship education and, consequently, create opportunities for graduates in all areas to support local business development at the same time.

Economic development hinges on teaching and sharing new and appropriate business models with people in the surrounding community. For emerging economies to move forward, they must develop connections with information resources that can help them achieve their goals. Universities oftentimes have faculty and students who can serve as catalysts to help local residents think beyond their limited foci in order to develop business models that leverage skill sets and expand regional employment capacities.

Higher Education Institutions worldwide are in the midst of a number of “transformative changes” at the conceptual and operational level. Our program is one such model that proposes a new paradigm in entrepreneurship education. Business schools have responded in a number of ways, not the least of which is to encourage critical thinking as a prominent feature of the curriculum.

At the University of North Carolina Greensboro, we have 49 courses in 26 departments that teach not only an entrepreneurial mindset, but an entrepreneurial skillset (Welsh, 2014). Part of the intentional design of the cross-campus entrepreneurship program is to effect student learning at higher levels of Bloom’s taxonomy (Bloom, 1956; Forehand, 2005) through experiential learning opportunities with local business owners.

We have built our learning upon a base of reciprocity. This is accomplished through engaging students in consulting projects with clients in the area. The benefit for students is that they develop critical thinking: one of the principal competencies desired by business employers today that is identified as lacking in college graduates. Critical thinking is seen as an ever more

necessary component of entrepreneurship education. It is quite often transdisciplinary in that it synthesizes information and ideas from different fields of study. Critical thinking is increasingly vital for new entrepreneurs as well.

Critical Thinking and Related Competencies

The National Council for Excellence in Critical Thinking defines critical thinking as the “intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action” (Scriven & Paul, 1987). It entails purpose, problem, or question-at-issue; assumptions; concepts; empirical grounding; reasoning leading to conclusions; implications and consequences; objections from alternative viewpoints; and frame of reference (Scriven & Paul, 1987). In order to think critically, a student needs to be able to gather and assess information. First, the student needs to be able to evaluate a problem, the information concerning the problem, and the assumptions that have been made about the problem. Next, s/he needs to be able to make good judgments about what to do.

What we have based our cross-disciplinary program on are three critical competencies: 1. Functional business skills (56 student learning objectives) 2. Personal skills (103 students learning objectives) 3. Syntheses skills (74 student learning objectives). We have identified a dozen critical learning competencies based on an analysis of 233 student learning outcomes identified in 49 syllabi across our program. We have furthermore classified these learning objectives into the three critical competency areas with the following results there are 103 learning objectives tied to personal skill building, 79 learning objectives that reflect synthesis of objectives and resources, and 56 learning objectives that fall into functional business skills (See Table 1).

Another way to look at the learning outcomes in the cross-disciplinary program is to look at how many were universally important across a number of disciplines. For example, developing personal skill sets appeared in the syllabi of 15 departments. The second most common competency was applying entrepreneurship in a different context which reflects the multiple disciplines in the program. The

third most common competency was synthesizing environmental forces across disciplines. Competencies that appealed in fewer disciplines were acquiring resources, financial skills, and growing and managing the business (See Table 1).

As indicated earlier, our students through their classes have an opportunity to refine these three skills sets by becoming consultants and assisting businesses in multiple areas, such as business planning, market feasibility studies, importing/exporting, etc., which refines the critical thinking skills of the students. Again, a principal component of this model is the interaction between local residents who have challenges in multiple areas and students. Thus the cross-campus entrepreneurship program is built on learning strategies that move entrepreneurship into the mainstream of higher education learning. Students become more competitive in the job market upon graduation. Moreover, they develop entrepreneurial mindsets and skillsets that are needed to start their own business or grow an existing business when they opt to take employment in a small/medium enterprise.

Table 1 Critical Competencies based on Cross-Disciplinary Entrepreneurship Learning Objectives

Typology of competencies appearing in program syllabi	Number of student learning objectives	Number of disciplines represented
Developing personal skill sets	53	15
Synthesizing environmental forces and issues	39	10
Applying entrepreneurial marketing strategies	33	6
Understanding entrepreneurship in different contexts	26	13
Employ effective communication skills	24	9
Applying financial skills	18	5
Recognizing opportunities	14	7
Developing personal creativity	12	5
Designing effective teams	9	5
Acquiring resources	3	3
Growing and managing the business	2	2

CONCLUSION

The impetus on us in higher education institutions is to infuse these competencies systematically across the campus in all disciplines. Faculty will benefit

from understanding how universal these objectives really are. Knowing this will help to engage their interest and commitment to entrepreneurship education. These findings have the potential to change the face of higher education as we know it. One of the major issues that developing and developed economies are facing is a lack of student preparedness for real world employment as well as the burden of student debt post-graduation. At the same time, there have been major upheavals globally, socially, politically, and technologically (Welsh and Dragusin, 2011, 2013). These environmental forces have constrained students' success because almost nothing stays familiar for long in today's business environment. Thinking critically and synergistically about business and about life after graduation is the new imperative. Cross-disciplinary entrepreneurship is not business as usual.

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Attitudes Towards Servant Leadership in MBA Students

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ABSTRACT

A servant leader has been defined as the leader who acts as a server for their subordinates, who has a holistic approach at the job, community sense, and who shares the power for decision making [2]. Liden, Wayne, Zhao and Henderson [6] proposed an instrument to measure servant leadership regarding 28 attributes. It is argued that the presence of a servant leader improves employee performance, commitment with the organization and service attitudes. Nevertheless, business schools seem to dedicate little attention to the formation of this kind of leaders, favoring two widely recognized leadership styles, transformational leadership and transactional leadership. Regardless of this lack of attention, it is argued in this study that current students are more sensible to sharing value with communities and not only to increase profits. Students nowadays seem to be more sensitive to their environment than before, and this could mean that they expect to be a different kind of leader, one that fits actual society needs. The purpose of this quantitative study is to gain insight on MBA students' attitudes, likely favorable, towards servant leadership. This would signal business schools on what topics include in the curricula.

INTRODUCTION

Leadership is one of the most studied concepts ever. There is little doubt on the influence that leadership styles can exert in subordinates as a leader's role is to encourage them to achieve organizational goals. Two of the main leadership styles dominating the literature are transformational leadership and transactional leadership. However, there is little research regarding how other leadership styles are perceived by young executives, particularly, those related to sharing mutual benefits for leaders and employees, as it is the case of servant leadership style.

Students attending MBA schools search for competencies such as goal settings, information gathering, leadership and technology skills [11]. MBA schools have always tried to educate tomorrow leaders according to society needs. Nowadays, it is not enough for an executive to think only in terms of profits, but in ways to succeed achieving shared value objectives with customers and society in general. This is because scarce resources and global threats, as global warming and migration, can only be managed by leaders that are aware of the negative consequences that arrive when short-term success is obtained by consuming no renewable resources. Long-term success implies wise use of technology and people, the most valuable assets a company has.

In an effort to prepare this needed kind of leaders, business schools adapt their curricula from time to time in order to adapt it to modern challenges. More attention is given to teaching soft skills, as teamwork, ethics, long-term orientation, empathy, etc. Those characteristics are according to the profile of a servant leader [5]. Business schools consider positive to teach MBA students how to succeed through employee empowerment. However, no many studies have measured the point of view of MBA students regarding servant leadership style. This study intends to fill this gap measuring the relationship between the level of identification of MBA students with servant leadership style and its relationship to job satisfaction.

LITERATURE REVIEW

Servant leadership style is defined as the style practiced by leaders who put employees' interests before their own interests [2]. Mittal and Dorfman showed the importance that a servant leader has to practice effective leadership, through humility and integrity. This leadership style promotes performance, but the authors warned of the effectiveness of this leadership style in high power distance cultures [7]. Peru is a high power distance country, according to Hofstede culture dimensions model [4].

Liden, Wayne, Liao, and Meusser [5] found that servant leaders try to promote the same behavior in their employees, creating a servant culture in their followers and promoting performance throughout the organization and the result is that employees identify better with the organization.

There are conditions through which employees are related to extra-role behavior of subordinates. Panaccio, Henderson, Liden, Wayne and Cao suggested that there may be factors through which the relation between servant leader and extroverted and collective employees can be exacerbated [9].

Servant leadership is a different leadership style from transformational leadership or transactional leadership styles. A servant leader is one that seeks their subordinates' wellbeing. There are studies that show that a servant leadership style promotes the achievement of organizational goals, as servant leadership affects productivity through satisfaction of basic psychological needs [1].

Stone, Russell, & Patterson [14] found that the most significant difference between transformational leadership style and servant leadership style is that the focus for a transformational leader is the

company, while for a servant leader is the employee. Moreover, transformational leadership style creates empowerment and an open culture, while servant leadership style creates a spiritual generative culture [13]. Parolini, Patterson, and Winston [10] found that a transformation leader focus more in organizational needs, loyalty, and control through charisma, while a servant leader focus more in employees' needs, service, loyalty, and offering liberty and autonomy. Schneider and George [12] studying volunteers in several organizations found that a servant leader is a better predictor of commitment, satisfaction and intention to stay than transformational leadership style.

A previous study in the educational sector was that of Hays [3]. In this study, the author studied the effect that servant leadership style had in the classroom. A servant leadership style promoted attitudes as autonomy, flexibility, initiative, responsibility, self-control, creativity and empowerment.

The objective of this study is twofold. In the first place, the study intends to measure the level of identification of MBA students with servant leadership style. This result will be shown using descriptive statistics. The second objective is to measure the relationship between the identification of the executive with servant leadership style and personal job satisfaction. The expected relationship is that executives that show more identification with the servant leadership style are also more satisfied in their jobs than executives who do not identified themselves with this leadership style.

The proposed research question is: Do MBA students who show more identification with servant leadership style also show more job satisfaction? The proposed hypothesis is:

H1: There is a positive relationship between identification with servant leadership style and job satisfaction in MBA students.

METHOD

MBA studies are offered in several versions that range from full-time studies to on-line studies. Among these options, in Peru, an underdeveloped country in South America, part-time students are the clear majority. Part time students are, usually, trained executives who want to earn management competencies and a diploma to signal the market regarding their professional abilities and skills. They are between 30 and 40 years old and most of them are bosses of five to ten employees. Close to 75% are males.

In this study the Mohrman-Cooke-Mohrman Job Satisfaction Scale [8] will be used, as well as the instrument, to measure 28 attributes of a servant leader proposed by Liden, Wayne, Zhao and Henderson [6]. Servant leadership style is defined as the independent variable and job satisfaction as the dependent variable.

A convenience sample will be taken from part-time MBA students at CENTRUM Católica, the largest business school in Perú, with more than 1,000 students enrolled per year, who are executives with more than five years of experience, and managing people at the time of the survey. The sample will be taken from April to June 2017, in Lima, Peru main city, to 180 students who work at the moment of the survey and have at least five subordinates and are not general managers, meaning they actually have a boss.

Besides the relationship between servant leadership style and job satisfaction, descriptive statistics will show the degree of identification with servant leadership style that actual MBA students have.

DISCUSSION

According to present management challenges, MBA students should identify with a leadership style that encourages them to take care of employees' needs. The results of the present study will shed light in their perception about the servant leadership style and if they think it is a positive way to lead. The relationship between the identification with servant leadership style and job satisfaction will clarify if this leadership style can help to diminish executives' turnover in organizations, as one of the main reasons why employees quit their jobs is that they do not agree with their boss's leadership style. Job satisfaction is used here as a proxy for motivation to transform reality. It is expected to be found a positive relationship between the independent and dependent variables.

For MBA schools, acknowledging how their students see servant leaders will help to adapt courses curricula accordingly and graduate professionals prepared to succeed in a complex and competitive environment.

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The effect of union membership on turnover intentions following psychological contract breach and violation

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ABSTRACT

This article reports on the effects of psychological contract breach and violation on turnover intention as perceived by convenience sample including union (n = 182) and non-union (n = 378) members. Hierarchical regressions were used to examine the relationships between the variables, followed by Fisher's Z-test and Hotelling's T^2 -tests to explore the differences between the models. Violation is a stronger predictor of turnover intention for union-members compared to breach being the stronger predictor of turnover intention for non-members. Management as well as trade unions need to be sensitive towards promises to employees during renegotiations of the psychological contract content, especially during periods of change in organizations.

INTRODUCTION

Organizations need to continuously develop capabilities to compete in a dynamic context. These efforts result in changes in organizations (e.g., ongoing restructuring) which could lead to an increase in employees' perception of psychological contract breach and violation [1]. Research evidenced that changes in organizations have a negative impact on the perceptions of psychological contract breach and violation that could result in higher levels of turnover intention [2]. Furthermore, employees often seek the protection and support of unions when they experience problems at work [3]. Some OECD member countries evidenced an increase between 1999 and 2013 in union density [4], for example Belgium (54.3% to 55.1%), Chile (12.7% to 15.0%), and Italy (35.4% to 37.3%). The differences between union and non-union members pertaining to breach, violation and the impact on turnover intention have not previously received attention.

OVERVIEW OF THE LITERATURE

The psychological contract is useful to understand the relationship between employer and employee. The social exchange theory [5, p. 91] underpin this relationship, in particular the mutual exchanges between the parties that informs the psychological contract.

Breach and violation of the psychological contract follow when obligations (created through promises) are not (fully) fulfilled. Breach is a cognitive assessment whereas violation which is an emotional reaction [6].

An interpretation (a cognitive sense-making) process follows breach and act as a moderator between

perceived breach and feelings of violation [6], [7]. It was noted [6] that the reasons for the outcome (perceived breach) following a search for explanations [8] will have a "strong effect" (p. 532) on employees emotions, specifically the intensity [9]. Although violation has been found to be the strongest predictor on an array of outcomes [10], different intensities of violation, between groups, have been reported [10]. However, lower levels of breach do not necessarily signal lower levels of violation [6], [11], [12]. The intensity of the emotional reaction depends on the meaning attached to the breach during the interpretation process [9].

Turnover intention has been found to significantly impacted by breach [7], but that violation being a key influence [10]. Violation has a strong positive relationship to turnover intention ($r = .62$) [7].

Research evidenced that breach is positively related to union commitment [13]. Low levels of fairness and fulfilment of the psychological contract have been associated with union membership [10]. Union instrumentality has a weakening effect on the impact of breach on violation [14]. Lower turnover rates among permanent employees have been associated with the presence of trade unions, in contrast to temporary employees [10]. It is expected that the regression coefficients between breach, violation and turnover intention could be different between union and non-union members.

Following the overview, the following questions are posed:

- 1: Do breach and violation predict turnover intention?
- 2: Are there significant differences between the models for union and non-union members?
- 3: Are there significant differences in the structure of the models between union and non-union members?

RESEARCH DESIGN

Approach. A cross-sectional online survey was conducted to gather data from respondents using convenience sampling.

Sampling and participants. The sample consisted of 560 employees, including 55.4% males. Only 26.1% of the respondents held a degree with 12.1% having no formal qualification. The majority of the respondents were operators (40.9%). The mean age was 36.27 years ($SD = 9.25$), tenure 7.61 years

(SD = 7.77), and work experience 12.8 years (SD = 9.1). Non-union members (n = 378) were more represented compared to members of a union (n = 182).

Measuring instruments. Breach and violation were measured with Robinson and Morrison's [9] instruments. Turnover intention was measured using Roodt's [15], [16] instrument. A five-point Likert scale was employed for all items. The following control variables were included: age (years), gender, education, relationship status, job level, tenure (years) as well as supervision responsibilities. Intercorrelations and reliabilities are reported in Table 1. In line with this study, correlations between breach and turnover intention have been reported as $r = .33$ [17], $r = .42$ [7] $r = .28$ [18], and between violation and turnover intention as $r = .44$ [18] and $r = .62$ [7].

Analyses. All three instruments were single factor solutions following exploratory factor analyses. One item was removed from the breach scale. Hierarchical regressions were conducted to assess the models' fit for the complete sample, the union and non-union member samples. Control variables were entered in Step 1 and the independent variables in Step 2. Fisher's Z-test [19], [20] was employed to examine the differences between the correlation coefficients for the models of union and non-union members. To compare the structure of the models, predicted turnover intention values, inclusive of the control variables, were constructed from the union and non-union membership models and assessed with Hotelling's T^2 -test [19], [21]. The individual variables' contribution to the different models were calculated order to minimize Type I and III errors due to too large Z-values as a result of large samples [21].

RESULTS

The results of the hierarchical regressions (Question 1) are reported in Table 2. Breach and violation significantly predicted turnover intention for all respondents ($R^2 = .307$, $F(9, 515) = 25.390$, $p < .001$). The model of the non-union members had an $R^2 = .320$ ($F(9, 339) = 17.730$, $p < .001$) with breach and violation significantly predicting turnover intention. Compared to violation ($\beta = .132$) and age ($\beta = -.176$), breach ($\beta = .445$) seemed to have the biggest contribution to the model. The model of the union members ($R^2 = .338$, $F(9, 164) = 9.303$, $p < .001$) evidenced that violation ($\beta = .391$) seemed to have the biggest contribution compared to breach ($\beta = .244$). One control variable, age (contributing 1.00% to the total R^2), was a significant predictor of turnover intention for all respondents ($\beta = -.157$) and non-union members ($\beta = -.176$), but not for union members ($\beta = -.043$).

There was no significant difference between the R^2 values of the union and non-union members' models (Question 2). A Fisher's Z-test ($Z = 0.24$, $p = .405$) indicated that the set of independent variables equally well predict turnover intention for union ($r_{g1} = .581$, $n_{g1} = 174$) and non-union members ($r_{g2} = .566$, $n_{g2} = 349$). This was followed by a comparison of the weights of the predictors between

the two models (Question 3). This comparison commenced with "applying the model derived from the union members to the data from the non-union members and comparing the resulting 'crossed' R^2 with the 'direct' R^2 originally obtained from this group" [21, p. 7]. Next, a Hotelling's T^2 -test evidenced a significant difference ($Z = 3.76$, $p < 0.01$) between the direct $R^2 = .560$ and the crossed $R^2 = .479$. Breach ($Z = 7.170$, $p < .001$) and violation ($Z = 5.060$, $p < .001$) (see Table 3) had statistically significant different regression weights between the two models. Violation had a stronger impact on turnover intention for the union-members ($\beta = .258$) compared to the non-union members ($\beta = .122$) as opposed to breach that was the strongest predictor for non-union members ($\beta = .413$) compared to union members ($\beta = .211$). Two control variables, age ($Z = -1.974$, $p < .024$) and relationship status ($Z = -1.974$, $p < .034$) differed significantly between the two groups.

DISCUSSION

The first question focused on turnover intention as predicted by breach and violation. Results evidenced that both breach and violation has a positive relationship to turnover intention, similar to previous studies that examined the relationship between breach [7], [17], [22] as well as violation [10] with turnover intent. Thus employees are more likely to leave their organizations when they perceive higher levels of breach and violation.

The next question sought to explore significant differences between the models for union and non-union members. There was no significant difference between the models for the union and non-union member models. A possible explanation may be that significant differences may not be evident in the overall models, but discernible in the structures (i.e. individual regressions) within each model. The last question aimed to investigate whether significant differences are evident in the strength of individual regressions between the two models. Significant differences between the individual regressions revealed that breach was the strongest predictor of turnover intention of non-union members compared to violation that was the strongest predictor of turnover intention of non-union members. Previous research evidenced different levels of violation between groups in particular between temporary (low levels) and permanent employees (high levels) [10]. Although union instrumentality has a lowering effect of breach on violation [14], the difference between the union and non-union members in this study may be explained by the union-members' attempts to make sense of perceived breach and the meanings attached to it [9], which could have increased the intensity of their emotions [8].

Practical implications. Management need to be cognizant of a perceived breach (violation) which may solicit emotional reactions among union members, and, need to find avenues to address these issues appropriately.

TABLE 1: Descriptive statistics, intercorrelations and reliabilities

Variables	1	2	3	4	5	6	7	8	9	10
1. Age	(-)									
2. Relationship	.47**	(-)								
3. Gender	-.21**	-.15**	(-)							
4. Education	-.31**	-.15**	.17**	(-)						
5. Job level	.11*	.16**	-.05	.28**	(-)					
6. Tenure	.68**	.35**	-.22**	-.38**	-.00	(-)				
7. Supervision	.25**	.25**	-.27**	-.09*	.42**	.21**	(-)			
8. Turnover int.	-.12**	-.08	.01	-.03	-.12**	-.02	-.05	(.76)		
9. Breach	.04	.06	-.01	-.13**	-.20**	.08	-.07*	.50**	(.85)	
10. Violation	.06	-.03	.00	-.17**	-.13**	.09*	-.04	.42**	.58**	(.90)
Mean	36.27	0.56	0.44	2.70	2.02	7.62	0.54	2.80	2.52	2.04
SD	9.25	0.50	0.50	0.99	1.02	7.77	0.50	0.95	1.05	1.20

Notes: $n = 238-560$; Cronbach alpha's reported on the diagonal.

Control variables: Gender: 0 = male, 1 = female; Education: 1 = no formal qualification, 2 = upper secondary, 3 = post-secondary non-tertiary, 4 = first stage tertiary; Relationship status: 0 = not in a relationship, 1 = in a relationship; Job level: 1 = operators, 2 = junior management, 3 = middle management, 4 = senior management; and Supervision responsibilities: 0 = not a supervisor, 1 = is a supervisor. * $p < .05$, ** $p < .01$.

TABLE 2: Hierarchical regression results for the prediction of turnover intention

	All respondents		Union members		Non-union members	
	Step 1	Step 2	Step 1	Step 2	Step 1	Step 2
<i>Step 1 (control variables)</i>						
Age	-.150*	-.157**	.011	-.043	-.185*	-.176**
Relationship	-.036	-.061	-.142	-.111	-.010	-.055
<i>Step 2 (independent variables)</i>						
Breach		.389***		.244**		.445**
Violation		.211***		.391***		.132*
<i>F</i>	2.315*	25.390***	1.182	9.303***	2.019	17.730***
ΔF		102.953***		35.984***		69.865***
R^2	.030	.307	.047	.338	.040	.320
ΔR^2		.277		.291		.280

Notes: $n = 525$ (all respondents), members ($n = 174$) and non-members ($n = 349$) of a union after listwise deletion. Standardized β -coefficients are reported. * $p < .05$, ** $p < .01$, *** $p < .001$.

TABLE 3: Differences in the contribution of the independent variables in the two models

Variables	Union members		Non-union members		SE_{B-diff}	Z	p
	B	SE_B	B	SE_B			
<i>Control variables</i>							
Age	-.004	.010	-.020	.007	.012	-1.974	.024*
Relationship	-.207	.138	-.105	.101	.171	-1.824	.034*
<i>Independent variables</i>							
Breach	.211	.068	.413	.055	.087	7.170	.000**
Violation	.258	.052	.122	.055	.075	5.060	.000**

Note: Unstandardized B -coefficients are reported; SE_B = Std. error of unstandardized B -coefficient. Only significant control variables are reported.

$$SE_{B-diff} = \sqrt{SE_{Bg1}^2 + SE_{Bg2}^2} \quad [23], [24]; \quad Z = \frac{Bg1 - Bg2}{\sqrt{SE_{Bg1}^2 + SE_{Bg2}^2}} \quad [23], [24].$$

* $p < .05$; ** $p < .001$

Limitations. Union instrumentality or commitment were not investigated. This limit our understanding to explain the strength of violation as a predictor of turnover intention among union members (and non-union members). Violation as a moderator was not examined.

Suggestions for future research. Future investigations could consider union instrumentality and union commitment to advance our understanding how the influence of unions impact breach and violation and how turnover intention is predicted in such a model.

Conclusion. This study examined the effect of union membership on turnover intention following psychological contract breach and violation. This

study evidenced that although the R^2 may not be significant between the union and non-union membership models, the internal structure may reveal significant differences between the internal regressions.

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Acknowledgement. The dataset used in this study is based on a larger dataset, with the data collected by students in 2016, for a postgraduate course in research.

A representative emotion inventory for Spanish-speaking population research

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ABSTRACT

In order to build a basic set of emotions for research in a Spanish Speaking working setting a sample of 697 professionals pursuing an Executive MBA was surveyed. They expressed a total of 4,441 emotions that occur in the workplace. Emotions were analyzed by the frequency of their mention, the relative speed with which they were remembered, and the gender and age of the subject. The 32 most named emotions were identified and its analysis suggests to be a useful set of emotions, gender influence free, to be used in Spanish speaking settings. The relative speed with which emotions were reminded and the influence of age also revealed interesting insights in terms of the emotions perceived by X and Millennial generation individuals.

BODY

Introduction

The last 30 years have seen a notorious shift in behavioral sciences to the study of emotions and their impact on attitudes and decision making in work settings. It has been shown that emotions can influence behaviors via attitudes and reactions [1][2] [9][14][16].

One framework frequently used in these studies is the Affective Events Theory [18]. This theory asserts that the characteristics of the work environment propitiate certain types of events that generate some positive and some negative emotions. These in turn affect behaviors immediately, or are forming attitudes that stimulate attachment or uprooting of the organization. Certain personality traits may moderate the relationships between variables [17]. A basic point for those investigations is to have an inventory of the emotions that are going to be reported at work. This set must have an extension not too large to facilitate the reports of the subjects. Although there are a large number of these inventories, they present some limitations because they were defined using samples from students, not necessarily workers [15].

Additionally, there are limitations for using these emotions inventories in Spanish-speaking countries. It has been demonstrated that the identification and appreciation of many emotions are influenced by culture in general and by language in particular [6][7][11][12]. It is not enough to translate them back and forth [7][10].

The approach used in this research was to work with professionals with work experience to write down the emotions that, at their opinion, happen in a work

environment. In order to discriminate them better, they were first asked to write down emotions in a general context for one minute. After this priming they were asked to write down a new list, but now specifically job related. They could repeat from the previous list. When the minute finished they were asked to write down their age and their sex. The sample comes from professionals with a university degree who are studying a part-time MBA. That is, sharing post degree studies with their work activities.

There are numerous positions as to the definition of what is an emotion, or a feeling, or a mood [3][4][5][13]. In the present study, we have not intended to choose any particular model but to take what individuals understand by emotions [3].

Characteristics of the sample

Valid data were received from 697 people. Not all reported age and / or gender. In the case of age $n = 424$, mean = 34, mode = 30, std.dev = 5.6, min = 23, max = 59. See Table 1.

The emotions expressed as adjectives were converted to nouns and a filter was applied to only take the emotions declared for the job.

RESULTS

General

Emotions were analyzed and classified as to their frequency of occurrence. There were 390 different emotions. The 25 most mentioned were taken (general ranking) covering 56% of the total mentions. The same analysis was then made, but discriminated by gender (M, F, ND). The results were compared with the overall ranking. There were emotions in the ranking by gender that were not in the general ranking. For this reason, the general ranking was expanded to consider all emotions occupying a place equal or less than 25th in any of the categories (H, M, ND). This led to expand the set to 32 emotions. See Table 2. This set represented 2,694 reported emotions, being the 60% of the total number (4,441).

The emotions that appear first in the lists made by the subjects were alegría (28%), satisfacción (10%), frustración (7%), felicidad (6%), and estrés (5%). When the selection expanded to consider the 2nd and 3rd places the same emotions were repeated.

By gender

Each emotion was qualified by its relative position (from most frequent to less frequent) in each one of the categories (H for men, M for women, ND for not reported gender). A correlation analysis was

made between the emotions positions attributed by H versus those of M. In general, no matter how many emotions we take (honoring relative positions of course) correlations between both opinions were above 0.85. In the general set of the 12 most mentioned emotions analysis showed that they were also included the 12 most mentioned by women, and also the 12 most mentioned by men (only if we add miedo in the latter case).

In relation to the total number of occurrences reported by each group, men reported relatively more times tensión, temor, felicidad, cólera, motivación, tranquilidad, preocupación, tristeza. On the other hand, women reported relatively more times estrés, orgullo, enojo, frustración, entusiasmo, decepción, angustia, sorpresa, envidia, compañerismo, impotencia.

By age (generations)

The millennial generation (n = 303; 1,968 emotions) and generation X individuals (n = 118; 799 emotions) were analyzed separately. Comparing the relative frequencies (positions) of the 32 selected emotions reported by generation, a low correlation was found between their positions (R = 0.37). The emotions that most lowered the correlation were desesperación, reconocimiento and compromiso. To those emotions, the X generation gives greater presence than the millennials. This on the other hand mentioned more times angustia, decepción, ansiedad, cansancio, orgullo.

CONCLUSIONS

It is possible to identify a manageable set (32 elements) of emotions as reported by a sample of professional individuals with work experience who are following an Executive MBA. When analyzed by gender, contrary to the popular beliefs, there were few differences on the emotions reported by both genders. The absence of relevant differences could be due to the fact that everyone is already professionals and with expectations of development. Therefore, the set of emotions found could be considered as a representative basic set (inventory) for research of the emotions in a working environment. Variations in the most reported emotions are presented when analyzed by generations, coinciding with studies that report different expectations in them. These differences could explain the differences in their emotional perceptions.

TABLE 1 Sample responses numbers

	H (Men)	M (Women)	No data	Total
Subjects	390	197	110	697
Emotions	2,479	1,294	668	4,441
Total emotions	3,773		668	

TABLE 2

Set of emotions ordered by frequency of appearance

Relative position	Emotion (Spanish)
1	alegría
2	satisfacción
3	felicidad
4	tristeza
5	frustración
6	cólera
7	estrés
8	preocupación
9	entusiasmo
10	motivación
11	enojo
12	ira
13	orgullo
14	ansiedad
15	miedo
16	angustia
17	impotencia
18	decepción
19	presión
20	temor
21	envidia
22	molestia
23	tranquilidad
24	logro
25	compañerismo
26	aburrimiento
27	tensión
28	reconocimiento
29	sorpresa
30	contento
31	impaciencia
32	rencor

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Investigating the effect of employee engagement on performance in the petrochemical industry

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ABSTRACT

Employee engagement is a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption. Practitioners and academics have over the years agreed that the consequences of employee engagement are positive. There is a general belief that there is a connection between employee engagement and business results. Two structured questionnaires were used for the study and 200 employees working for a petrochemical company were targeted. The data showed a statistically significant positive relationship between employee engagement and TQM dimensions. Managers need to enable an organization to attract, develop and retain highly engaged employees to ensure a sustainable competitive advantage.

INTRODUCTION

To survive and compete successfully in today's turbulent economic environment, organizations require employees to be pro-active, show initiative and remain committed to performing at high standards [2, p. 181]. Organizational agility requires employees who exhibit energy and self-confidence and demonstrate genuine enthusiasm and passion for their work [3]. Summing up, modern organizations need an engaged work force.

Employees who are engaged want to contribute, have a sense of belonging, defend the organization, work hard and are not interested in moving to other employers. Employees, who are not engaged, cause a gap between employees' effort and their organizational effectiveness. This significantly affects an organization's financial performance [10].

The focus of this research was on the influence of engagement on supply chain performance in a petrochemical company. This company operates production facilities in South Africa and supplies a range of chemicals to local and international markets. Its competitive advantage lies in its people and its unique technology and products. The performance of the organization is dependent on the workers having pride in their work. The degree to which these employees are engaged is therefore critically important for the success of the business.

LITERATURE REVIEW

Stockley [15] defines engagement as the extent that an employee believes in the mission, purpose, and values of an organization, and demonstrates that

commitment through their actions as an employee and their attitude towards the employer and customers. Most often it has been defined as emotional and intellectual commitment to the organization or the amount of discretionary effort exhibited by employees in their jobs [18]. According to the Gallup Consulting Organization [4], there are, in terms of engagement, different types of people: Engaged, not engaged and actively disengaged.

It is understandable that organizations wish to increase employee engagement, given that engaged employees are willing to make use of their full potential in their work roles in a positive way [3], have better well-being [5], are more productive and remain in their jobs for longer [13] [14].

The Gallup Organization [4] found critical links between employee engagement, customer loyalty, business growth and profitability. The International Survey Research (ISR) team has similarly found encouraging evidence that organizations can only reach their full potential through emotionally engaging employees and customers [6].

There is much published work on quality as a performance measure in supply chains [8]. Quality is most often defined as the ability of a product or service to consistently meet or exceed customer expectations. Total quality management (TQM) as defined by Mohrman *et al.* [11] is an approach to managing organizations, which emphasizes the continuous improvement of quality and customer satisfaction. Karia and Asaari [7] define TQM practices (what an organization does to demonstrate its commitment to TQM) as a set of practical measures such as: continuous improvement; meeting customer requirements; reducing re-work; long-range thinking; increased employee involvement and teamwork; process re-design, competitive benchmarking; team-based problem solving; continuous monitoring of results and closer relationship with suppliers.

PROBLEM STATEMENT

Engaging the employees of the petrochemical organization is important as this sector forms a significant part of a country's economic system especially in the supply of fuels and chemicals. Having employees that are engaged means they will work alongside the organization to achieve its goals and objectives and they can provide the organization with competitive advantage. Thus by engaging their employees they can improve levels of productivity, job satisfaction, motivation, commitment, and reduce turnover rates.

OBJECTIVE

The primary objective of this study was to investigate employee engagement and the possible impact it has on the performance of the whole supply chain.

RESEARCH METHOD

Quantitative method was used. Two questionnaires were administered, namely the Utrecht Work Engagement Scale (UWES) and Total Quality Management. A random sample of 200 employees was selected from a population of 583 employees. The data was captured and analyzed using the SPSS and STATISTICA statistical programs. Exploratory factor analysis, descriptive and inferential statistics were carried out.

DISCUSSION OF RESULTS

A response rate of 83% was achieved. The results of the factor analysis of the UWES confirmed a two-factor model by using the simple principal factor analysis with a direct Oblimin rotation. The first factor was labelled Vigour-Dedication and the second factor was labelled Absorption. The results obtained using the principal component analysis confirm the previous studies [17][12][9] that have been done across different samples and occupational groups in South Africa. A study by Storm and Rothmann [16] indicated that although the three-factor structure results were satisfactory, the fit with data was superior with the one-factor or two-factor structure.

Exploratory factor analysis was conducted on the TQM and the results revealed that the questionnaire has a seven-factor structure with all the items loading on those factors. Antony *et al.* [1] also identified seven critical factors for TQM. The reliability co-efficients for their results ranged from 0.62 to 0.95.

Overall the results indicate that employee engagement has a positive relationship with the dimensions of TQM which is used as a measure of quality, which is a non-financial measure of performance. This finding is in agreement with the conclusions drawn by practitioners and academics that the consequences of employee engagement are positive [13].

Significant differences were found between the various demographic groups and their scores on engagement. Females were more engaged in terms of absorption, but had similar levels of engagement in terms of vigor-dedication. Employees aged in the 41 – 59 years category were slightly more engaged than the other groups. Employees in the middle and senior management levels were the most engaged. Junior employees were the least engaged. Employees with 0 – 2 years experience were the most engaged while the level of engagement was similar for the rest of the employees. Employees who had no grade 12 qualification were the most engaged.

RECOMMENDATIONS

Research has shown that there is a link between levels of engagement and organizational performance. Human resource practices that have a strong focus on people have demonstrated a significant impact on improvements in productivity, satisfaction and financial performance. In addition, engagement needs to be viewed as a broad organizational strategy that involves all levels of the organization.

For managers, work of employee engagement starts at day one through effective recruitment and orientation program, the work of employee engagement begins from the top as it is unthinkable to have engaged people in the organizations where there is no engaged leadership.

Managers should enhance two-way communication, ensure that employees have all the resources they need to do their job, give appropriate training to increase their knowledge and skill, establish reward mechanisms in which good job performance is rewarded through various financial and non-financial incentives, build a distinctive corporate culture that encourages hard work and keeps success stories alive, develop a strong performance management system which holds managers and employees accountable for the behaviour they bring to the workplace, place focus on top-performing employees to reduce their turnover and maintain or increase business performance.

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Threshold effects of psychological contract breach

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ABSTRACT

There is growing interest in nonlinear modelling of psychological contract breach and outcome variables. This article reports on a partial replication of a previous investigation into thresholds models. A convenience sample (n = 549) responded to global measures of breach, team altruism, violation and turnover intention. Hierarchical and segmented regressions were used to examine thresholds. Threshold models explained more variance compared to monotonic linear models in the outcomes of breach. This finding paved a way for how the psychological contract is to be examined and understood.

INTRODUCTION

Organizations can no longer ignore the impact of and subsequent responses to the changing global context. Among other, innovation is prime for organizations to create value for customers and to remain sustainable and competitive in a global context. These drivers could result in a review of existing and future mutual promises and obligations between employers and employees. These ‘exchanges’ are central to the employment relationship and the psychological contract, the latter which aids to predict and explain how employees behave in organizations [1]. Psychological contract breach occurs when there is a perception that promises made (thus an expectation has been created) in the social exchange, have not been honored [2].

The effects of breach have mainly been examined in linear models despite arguments for the existence of threshold effects. A threshold “implies that sudden changes in attitudes in relation to perceived breaches to the psychological contract only occur when a certain level of breach has been reached” [1, p. 443].

Breach has been examined with global and item-specific measures [3]. A global approach is not as specific compared to using specific item measures [3], as it assesses subjects’ overall perceptions of how an organization kept to the deal [4]. The global approach, when compared to a composite measure, resulted in larger effect sizes between breach and violation, job satisfaction, organizational commitment and OCB, but not for turnover intention and in-role performance [4]. Therefore, this study aimed to partially replicate Rigotti’s (2009)¹ [1] study of threshold models using global measures in a different cultural context.

OVERVIEW OF THE LITERATURE

Two theories have been advanced in support of thresholds in social exchange relationships [1]. In line with the referent cognitions theory [5], [6], a “threshold would be reached when actions from others fall outside of the realm of expectations” [1, p. 444]. Based on equity theory [7], a threshold is exceeded when “the equation own contributions in relation to own outcomes results in a higher value than the equation others’ contributions in relation to their outcomes” [1, p. 444].

Evaluative processes precede perceptions of breach (e.g., [8], [9]). Social exchange theory, which underpin the psychological contract, have been proposed in the context of gradual changes, resulting in “zones of acceptance” [2, p. 148]. This notion has been extended into a distinction between a band of acceptance and a band of tolerance [10].

National culture has been explained to influence tolerance; a high tolerance level of uncertainty is regarded as “something that an individual will try to keep” [11, p. 158], [12]. Collectivistic societies have a higher tolerance when contract violation is perceived, and will respond more intensely beyond the threshold [13], [14].

This study examined the threshold effects of breach on work behavior (team altruism), work attitude (turnover intention) and affective reaction (violation) variables. Team altruism refers to “team members’ interdependent, voluntary actions benefiting others (e.g., fellow team members, their own team as a whole, those outside the team) that involve self-sacrifice and are not mandated by central authorities (e.g., team leaders, managers) or formal sanctions” [15, p. 541]. Team altruism can be understood in the context of Organizational Citizenship Behaviour (OCB). A lack of discretionary actions benefiting others (as in teams) may negatively affect, “a tangible impact” [4, p. 652], the social relationships between colleagues. This may create a negative spiral: employees expects positive relationships between colleagues from the employer [16], [17]. However, a deteriorating relationship due to a lack of social engagement may result in a perception of breach, where the employee will be “less likely to engage in OCB [altruistic behaviors] [4, p. 652]”.

¹ Rigotti, T. Enough is enough? Threshold models for the relationship between psychological contract

breach and job-related attitudes. *European Journal of Work and Organizational Psychology*, 2009, 18(4), 442–463.

Violation, conceptually different to breach [8], is an “emotional and affective state that may ... follow from the belief that one’s organization has failed to adequately maintain the psychological contract” [8, p. 230]. Breach, a rational and mental calculation [8], has a positive linear relationship to feelings of violation evidenced in a meta-analysis ($r = .52$) [4], as well as a segmented relationship [1]. The average observed effect size of violation predicted by breach examined with global measures of breach was significantly larger ($\bar{r} = .47$) compared to the composite measure ($\bar{r} = .38$) [4].

Intention to quit is a common response to a negative event [18]; thus, a negative event (breach), may increase an individual’s intent to leave. Breach has a positive linear relationship to turnover intention ($r = .42$) [4]. The average observed effect size using a global measure of breach ($\bar{r} = .37$) predicting turnover intention was not significantly different compared to the composite measure ($\bar{r} = .31$) [4]. A moderate relationship between breach and intention to quit ($\bar{r} = .33$), inclusive of both approaches in measuring breach, have also been reported [19]. A linear segmented positive relationship was also found between breach (using a composite measure) and turnover intention [1].

The following relationships, differently operationalized to Rigotti’s (2009) [1] study, are proposed:

H1: Breach assessed with a global measure has a nonlinear relationship to (a) turnover intention, (b) violation, and (c) team altruism.

H2: More variance is explained by threshold models in (a) turnover intention, (b) violation, and (c) team altruism compared curvilinear models.

RESEARCH DESIGN

Approach. A cross-sectional design with an online questionnaire was followed.

Sampling and participants. The convenience sample consisted of 549 employees; the mean age was 36.3 years ($SD = 9.34$), tenure 7.61 years ($SD = 7.85$), and work experience 12.8 years ($SD = 9.1$). The sample consisted predominantly of males (56.5%), low-skilled workers (41.0%), and employees with upper secondary education levels (31.5%).

Measuring instruments. Breach and violation were measured with Robinson and Morrison’s [20] scales. Turnover intention was measured using Roodt’s [21], [22] scale. Team altruism was measured with Van Wyk’s [23] scale with items rephrased to assess individuals’ altruistic behavior. Five-point Likert response scales were used for all items. Intercorrelations and reliabilities are reported in Table 1.

TABLE 1: Intercorrelations and Cronbach’s alphas

	1	2	3	4
1. Breach	(.92)			
2. Team altruism	-.43*	(.95)		
3. Turnover int.	.44*	-.29*	(.76)	

4. Violation	.47*	-.26*	.40*	(.90)
M	2.61	3.75	2.74	2.01
SD	1.17	0.78	1.01	1.19

$n = 548-549$. * $p < .001$. Reliabilities on the diagonal.

The correlations between breach and violation ($r = .47$, $p < .001$) and turnover intention ($r = .44$, $p < .001$) were similar to previous studies, ranging between $r = .52$ [4] and $r = .54$ [1] for violation, as well as $r = .33$ [19] and $r = .42$ [4] for turnover intention.

Analyses. A CFA revealed an acceptable fit to the data (Satorra-Bentler $\chi^2(370) = 822.018$, CFI = .950, SRMR = .052, RMSEA = .047, and RMSEA 90% CI: .043–.051; robust values are reported). Hierarchical regressions, with breach centered (mean) [1], [7], were used for linear- (Step 1) and quadratic models (Step 2). Initial parameters of the threshold models² were obtained from Step 1 of the hierarchical regressions; $bb1$ was set at -1 . SPSS 23’s nonlinear regression function was used to estimate optimal parameter values and regression statistics [24]. Control variables were excluded similar to [1]. R^2 s were compared with partial F-tests.

RESULTS

Regression results (Table 2) evidenced that breach explained 18% (team altruism), 19% (turnover intention) and 22% (violation) variance in linear models (Step 1). All curvilinear relationships (Step 2), with small explained variances (between 0.2% and 0.4%), were insignificant, thus not explaining an improved fit to the data. Hypotheses 1_{ac} are rejected.

Parameter values and segmented regression results are reported in Table 3. The inclusion of a knot (threshold) for all variables led to an improved fit (i.e., increased R^2) to the data. The effect of breach on turnover intention is intriguing. Rigotti [1] and this study evidenced a positive relationship. However, in this study, a decrease in intensity in turnover intention ($bb1 = -.196$) followed after the threshold (knot = 2.684), compared to Rigotti’s [1] study where an increase in intensity ($bb1 = .68$) was observed following the threshold (knot = 2.84). The effects of breach on violation in these studies followed a similar pattern, except for an earlier threshold (knot = 1.917) revealed in this study.

A comparison between linear and threshold models revealed an increase in explained variance (R^2) team altruism (18.2% to 18.7%), turnover intention (19.4% to 19.8%) and violation (21.6% to 22.5%); Rigotti (2009) [1] also reported more explained variance (R^2) in turnover intention (8% to 11%) and violation (24% to 36%).

A comparison of the explained variance between discontinuous linear and threshold models are

² Model specified:

$ba0 + ba1 * breach + bb1 * (breach - knot1) * (breach \geq knot1)$

reported in Table 4. Partial F-tests revealed that threshold models did not statistically better fit the data compared to linear models for team altruism, turnover intention, and violation. Only the threshold model for violation statistically better fit the data, with 0.9% additional explained variance ($p < 0.05$), compared to the quadratic regression. Only Hypothesis H2_b is accepted. Rigotti (2009) [1] presented similar results for turnover intention and violation.

TABLE 2: Regression results (breach as independent variable)

	Team altruism			Turnover intention			Violation		
	β	ΔR^2	ΔF	β	ΔR^2	ΔF	β	ΔR^2	ΔF
Step 1		.182	121.932*		.194	131.510*		.216	150.369*
Breach	-.427*			.441*			.464*		
Step 2		.002	1.512		.004	2.903		.004	2.543
Breach ²	.051			-.070			.065		
Adj. R^2		.182			.195			.216	
F			61.779*			67.436*			76.668*

$n = 548-549$ after listwise deletion. Standardized regression coefficients are reported. * $p < .001$. Control variables excluded.

TABLE 3: Parameter estimates for segmented regression

Dependent variables	ba0	ba1	bb1	Knot	95% CI for knot	SS _R	R^2
Team altruism	4.588	-.331	.206	3.667	2.304–4.551	270.197	.187
Turnover intention	1.551	.491	-.196	2.648	1.221–4.075	448.748	.198
Rigotti (2009) [1]	1.130	.100	.680	2.840	2.590–3.090	255.980	.110
Violation	1.343	.104	.458	1.917	1.225–2.609	598.812	.225
Rigotti (2009) [1]	1.390	.220	.850	2.640	2.460–2.820	403.030	.250

$n = 548-549$ after listwise deletion. Control variables excluded. SS_R = Sum of squares (residuals)

TABLE 4: Comparisons between segmented regression, linear, and quadratic models with partial F-test

Comparisons		Team altruism	Turnover intention	Violation
Segmented regression vs. linear regression	ΔR^2	.005	.004	.009
	$\Delta F(df_1, df_2)$	1.115 (3, 544)	0.903 (3, 543)	2.106 (3, 544)
	p	.342	.440	.098
Segmented regression vs. quadratic regression	ΔR^2	.005	.003	.009
	$\Delta F(df_1, df_2)$	1.673 (2, 544)	1.016 (2, 543)	3.159 (2, 544)
	p	.189	.363	.043*

$$\Delta F = \frac{(R_1^2 - R_2^2) / (df_1 - df_2)}{(1 - R_1^2) / n - df_1 - 1} [1]. *p < .050$$

DISCUSSION

Three major findings are present in line with the hypothesis proposed. Firstly, considering the non-linear relationships, the effects of breach evidenced thresholds with the outcome variables, similar to a previous study [1]. This supports the existence of threshold models [1], [2], [8], [10], [25], [26]. Furthermore, thresholds were found using global measures compared to item-specific measures used previously [1]. In contrast to [1], significant curvilinear relationships were not found.

Secondly, unlike previous findings [1], the threshold models, when compared to the linear models, did not statistically explain significantly more variance between breach and team altruism, turnover intention and violation. A possible explanation could be the different perceptions held by diverse cultures [11]–[13] as well as, during sense-making of breach, the meanings attached to breach [20] which may not be adequately revealed by global measures compared to composite measures.

Explained variance between threshold and curvilinear models are inconsistent with previous research [1]. Only the threshold model between breach and violation explained more variance compared to the curvilinear model; similar models with turnover intention were statistically not significant. This is inconsistent with previous research [1].

Practical implications. Thresholds require management to be sensitive to changes in the employment deal, in particular in multi-national organizations with diverse cultures.

Limitations. The use of a global evaluation of breach limits our understanding of threshold effects in particular specific content of the psychological contract. Moderators, not examined in this study, may have influenced threshold levels.

Suggestions for future research. A cross-cultural study will enhance our understanding of thresholds in different cultures. Threshold effects could also be examined with the inclusion of moderators.

Conclusion. This study examined and evidenced additional variance as explained by threshold models using global measures.

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Acknowledgement. The dataset used in this study is based on a larger dataset, with the data collected by students in 2016, for a postgraduate course in research.

The adverse effect of psychological contract breach on psychological capital

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ABSTRACT

Although diverse studies have investigated Psychological capital (PsyCap) and the psychological contract as separate constructs, it seems that the effect of breach on PsyCap has not been investigated before. PsyCap has the potential to advance the competitive advantage of business. Psychological contract breach (PCB), on the other hand may lead to adverse negative effects in business. An exploratory quantitative investigation on a sample of 597 individuals shows a significant negative effect of breach on each of the PsyCap scales, varying between 10.6 and 6.1%. This is a clear indication to management that possible violations of the psychological contract, resulting in breach, should be prevented at all cost to preserve a healthy PsyCap work environment.

INTRODUCTION

For businesses to stay globally competitive, there is a need to identify and nurture psychological variables that could provide a competitive edge. The vicissitudes of soft skills are not always obvious in employer/employee relationships. A critical relationship is formed between an employer and an employee – this exchange agreement is referred to the psychological contract [1]. A healthy psychological contract, i.e. the implicit congruence of commitments and agreements between employees and the organization, called fulfillment, could enhance the effectiveness of an organization [2], and employee performance [3]. On the other hand, breach of the psychological contract, could lead to ineffectiveness, absenteeism, weak performance [2], lowered organizational citizenship behaviors, higher forms of job neglect and an increased intention to leave [4]. PCB is regarded as the disappointments of employees in the non-fulfillment of the employer's promised commitments [2], therefore, an inconsistency between expectations and delivered promises [5]. Perceptions of PCB are formed by high job demands and limited resources, leading to negative affect [6]. PCB does not only have a negative relationship with affective commitment, organizational citizenship and work engagement [7], it is also negatively related to the trust relationship between the employer and employee [8].

In the light of the potential negative affective role that PCB may play in business, there is an implied possibility of having a negative influence on PsyCap. PsyCap is a soft skill that potentially contributes to the value of an organization [9] by improving performance [10], individual and team creativity [11], supports a readiness to change [12], as well as an improved ability to cope with change [13]. PsyCap, the positive strengths and capacities of the individual, may lead to improved performance in an organization [14], consisting of hope, efficacy, resilience and optimism [9], represented by the acronym HERO [15]. The four HERO factors are defined as:

Hope: The agency and pathways that serve as direction in motivational states [16], that empower individuals in achieving goals [9].

Efficacy: Self-efficacy is the belief of the individual in his/her abilities to succeed at tasks or goals in the future [17], leading to improved performance and achievement of organizational goals [18].

Resilience: The psychological mindset in which the individual develops competent functioning over time, in reaction to the internal or external environment [19]. It is an ability to re-organize and maintain emotional functionality notwithstanding challenges [20].

Optimism: The capability and emotional state of the individual that contributes to the belief in being successful in future [21], leading to improved worker productivity and customer satisfaction [22].

Problem Statement

A more in depth knowledge of the effect that PCB may have on PsyCap is unspecified and needs further investigation

Research Question

What is the relationship between PCB and PsyCap?

METHOD

This exploratory quantitative design included the electronic and manual distribution of a questionnaire, consisting biographic and demographic variables, as well as the Psychological Contract questionnaire designed by Robinson and Morison (2000) [23] consisting of 24 items, measured on a 5-point Likert scale with a Cronbach Alpha of .80. The PsyCap Questionnaire developed by Luthans, et al (2007) [21], consisting of 24 items,

indicated by a 6-point Likert scale, measuring hope ($\alpha = .86$), efficacy ($\alpha = .90$), resilience ($\alpha = .72$), and optimism ($\alpha = .75$). Ethical practice entailed asking employees to voluntarily participate, with an indication of opting out, if desired, and confirming anonymity and confidentiality of results. A target sample of 1406 blue and white collar workers from different industries were selected, with a response of only 597 usable respondents. The sample consisted of 55.8% males, and 43.6% females (4 individuals did not indicate their gender), with educational levels varying from pre matric level to post graduate degrees. The average age of the respondents was 36.45, varying between 18 and 64 years, of whom 43.7% were not married, 50.4% married or cohabiting and 5.2% divorced, separated or widowed (.7% missing). Most of the participants indicated that they were black Africans (68.9%), followed by White (16.4%), Indian (6.9%) and Colored (7.5%) (1% missing). Data was analyzed

with SPSS. Multiple Regression Analysis investigated the prediction of PCB as independent variable with PsyCap as dependent variable.

RESULTS

The results of the relationship between PCB and PsyCap is reported in Table 1.

Table 1 Stepwise Multiple Regression Analysis of breach with PsyCap factors as dependent variables

Dependent variable	R	R ²	Adjusted R ²	F(df)	p	B unst	B st	t	p	r
Self-efficacy	.329	.108	.106	70.281 (1;582)	.000	-.329	-.340	-8.383	.000	-.329 <i>p</i> = .000
Hope	.329	.108	.106	70.669 (1;583)	.000	-.330	-.346	-8.406	.000	-.329 <i>p</i> = .000
Resilience	.113	.013	.011	7.559 (1;587)	.000	-.106	-.113	-2.757	.006	-.113 <i>p</i> = .003
Optimism	.251	.063	.061	39.226 (1;584)	.000	-.291	-.302	-6.263	.000	-.251 <i>p</i> = .000

Discussion

Table 1 indicates a significant negative correlation as well as prediction of breach on all four the PsyCap factors, with a prediction varying between 6.1% and 10.6%. For every unit that breach increases, self-efficacy, hope, resilience and optimism is respectively significantly negatively influenced with .34, .35, .11 and .30 units. This negative effect is in agreement with the literature that breach leads to adverse effects in business [2] [4] [6] [7] [8].

Limitations, future research and implications for management

The results of the current study is limited to the South African sample. More research needs to be done in other countries. Future studies could investigate the further adverse effects of breach and its adverse effects in the business environment, as well as factors that may enhance PsyCap.

This study emphasizes the importance of the dark side of breach and serves as encouragement to improve psychological contract relationships. This investigation adds to the body of knowledge of PsyCap – as far as could be established, this relationship was measured for the first time.

CONCLUSION

It is important that industry should take note of the potential advantage of management psychological contract relationships to the benefit of the organization and that potential breach should be avoided at all costs.

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Does psychological capital play a role in the prediction of team altruism?

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ABSTRACT

The positive psychological resources that the hope, efficacy, resilience and optimism characteristics of psychological capital (PsyCap) holds, possibly affects altruistic behavior of teams. This quantitative investigation sheds more light on this relationship. Multiple Regression Analysis with PsyCap as independent variable predicts the four factors of team altruism: team goals, collegiality, after hours support and problem solving. Questionnaires were sent to 598 participants in different industries. Indications are that self-efficacy, hope and resilience significantly predict team altruism. This is a further indication of the important role that PsyCap plays in promoting healthy teamwork in business.

INTRODUCTION

The important role that positive organizational behavior plays in global business competitiveness, is on the increase. Businesses that develop a supportive positive organizational behavior culture, promotes reciprocal positive perceptions across cross-cultural interactions [1] and assists in communicating challenging messages in healthy ways [2]. PsyCap, which developed from the positive organizational behavior movement [3], similarly has many advantages, such as: influencing creative performance [4], advancing learning and engagement abilities [5], playing a mediating role in the relationship between servant leadership and work engagement [6], improving entrepreneurial confidence [7]. PsyCap is also significantly negatively related to compassion fatigue, burnout and secondary traumatic stress [8]. Luthans et al. [3] describe PsyCap as measureable concept that is manageable and open to development - consisting of hope, self-efficacy, resilience and optimism:

Hope: Snyder et al. [9] relates goal orientated performance to the goal directed agency (purposive behavior), and pathways (construction of goals) in creating ways of accomplishment.

Self-efficacy: Introduced by Bandura [10], self-efficacy is the outcome expectancy and belief of the individual in accomplishing goals.

Resilience: The propensity to be able to 'bounce back' and recover from challenging circumstances [11], improving job performance and satisfaction [12].

Optimism: The characteristic tendency of the individual believe that misfortunes are beyond

control, attributed to external unstable events, and positive outcomes are attributed to internal stable attributes [13]. Optimism suppresses depressive symptoms [14] and predicts citizenship behavior [15].

PsyCap has many positive consequences that support organizational resources, performance and employee attitudes [16]. The broader thought repertoire of high PsyCap is associated with extra-role behaviors such as organizational citizenship behavior, enhancing team engagement and performance. Altruism seems to play a role in teamwork, advancing organizational learning [17].

Where altruism is regarded as a selfless ethical doctrine, where the support to the benefit of others takes place, regardless of the consequences [18]. Team altruism offers an additional dimension, that team members independently and voluntarily offer a non-mandatory self-sacrificial act to the benefit of the team [19]. Though the self-sacrificial side may lead to possible strain and burnout, team altruism offers promising positive outcomes in business. A measure of team altruism identifies team work, collegiality, after hours support and collaborative problem solving as measure [20].

Problem statement

More clarity is needed on the influence that PsyCap may play in team altruism.

METHOD

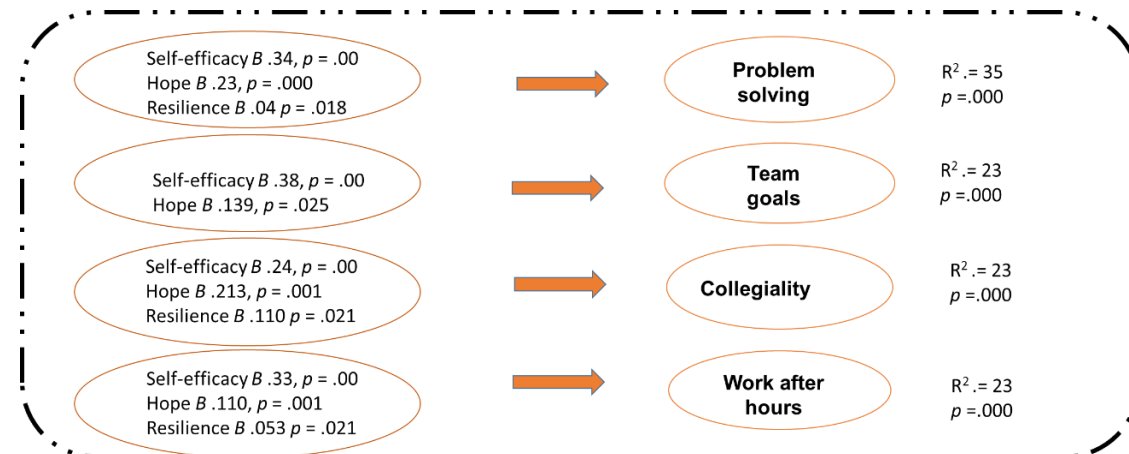
This exploratory quantitative design from a purposive sample of a variety of industries in South Africa, investigated the prediction of team altruism with PsyCap as independent variable. A sample of 1306 individuals were invited to voluntary and anonymously take part. Only 579 usable responses were used in the analyses. The age of the respondents varied between 18 and 64 (mean = 36.45), consisting of 55.8% males and 43.6% females (.7% missing), mainly Black Africans (68.2%), (31.8% White, Indian or Coloured), at mostly operational (29.8%) and junior management (19.1) levels. The Luthans et al. [21] and Van Wyk [20] instruments were used to respectively measure PsyCap and team altruism. Exploratory

Factor Analysis indicated that the negatively worded resilience items did not load on one factor with the positively worded items, and were removed for further analyses. The reliability coefficients of

the scales are reported in brackets: PsyCap: hope (.86), efficacy (.90), resilience (.72) and optimism (.75); Team Altruism: team goals (.95), collegiality (.90), after hours (.90) and problem solving (.90).

RESULTS

Table 1: Results of the Multiple Regression Analysis with team altruism as dependent variable



DISCUSSION

The significant shared common variance between PsyCap and team altruism, is an indication that PsyCap factors improve different forms of team altruism. It is not clear what the non-significant prediction of optimism is. It could be that optimism plays a mediating role. Further research is needed to provide more clarity in this regard. A similar result is reported by Strauss et al. [22], as optimism did not contribute to the predictor variable, task adaptively.

Limitations, Future Research and Implications for Management

Though the study covers a broad spectrum of South African organizations, it is not clear if results will be duplicated in other countries. Future studies in should investigate other possible antecedents and outcomes regarding both PsyCap and team altruism. Optimism may also be explored as a possible mediator between PsyCap and team altruism

This study contributes to the theory of knowledge, conceptualizing how PsyCap relates to team altruism as work variable. In the light of the positive outcomes of PsyCap on team altruism, management could improve team altruistic collaboration by improving self-efficacy, hope and resilience. Management could consider using the PsyCap questionnaire for selection purposes, or identification of needs for intervention, as it may lead to improved altruistic team behavior.

CONCLUSION

The significant positive role that PsyCap plays in facilitating team altruism, proves to be a powerful construct that business should cultivate to improve

The relationship between PsyCap and team altruism is reported in Table 1 by means of Multiple Regression Analysis.

their human capital interest as a competitive advantage.

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The Key Characteristics of Necessity: Comparison Between Students and Employee Data

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ABSTRACT

Three different types of employees can be found in workplaces all over the world: “Necessities,” “Commoners,” and “Parasites.” A person is a Necessity if s/he is irreplaceable and crucial to the functioning of an organization. A Commoner is a person of normal ability and talent who has no significant impact on organizational success. Parasites are detrimental freeloaders who damage the functioning of an organization.

To identify the principal characteristics of these three types of workers, a group of researchers led by Chong W. Kim conducted six studies in which they collected survey data from undergraduate and graduate business students in the U.S., India, Korea, Chile, and Japan. The summary of six published studies is reported in Kim, Smith, Sikula and Anderson (2011).

The purpose of this article is to compare the results of these studies with newly collected data from working employees in order to identify the key trait differences of Necessity between students and working people’s perception. The authors note the points of commonality and difference between these data sets and offer their thoughts on future research in this area.

INTRODUCTION

Human beings, by nature, are relational creatures. At any given time all people, regardless of their individual differences (e.g., age, gender, religion, ethnic background), assume multiple roles in society, such as spouse, parent, employee, friend, club member, and citizen of a city, town, or country.

Within each of these roles there is always more than one person involved, from a very small number of members in an institution like a nuclear family, to a very large number of members comprising the citizenship of a nation. No matter what type of role a person plays in a group at any given time, however, that person falls into one of three categories: Necessity, Commoner, or Parasite.

The most desirable type of person is the Necessity. The person of Necessity focuses his/her efforts on achieving the group’s goals, and thus consistently makes valuable contributions to ensure collective success. From the group’s perspective, such a person is an invaluable asset. Indeed, without members who are Necessities, the group as a whole cannot function successfully. The loss felt within the group by the departure of such an individual, therefore, is significant. Necessities provide the social “glue” that holds an organization together and enables it to function and thrive as a cohesive whole.

Commoners have no significant impact on the success of the group. They do not contribute much to the accomplishment of group goals, but neither do they harm the overall group performance in any significant way. A Commoner is not a self-starter and tends to focus on “just getting by.” They are easily replaceable and not missed much when they leave.

The third and least productive type of person is the Parasite. This individual not only fails to contribute to group performance, but also harms the organization by acting as a leech and a drain on others. The Parasite is a loafer who desires a free ride, complains about everything, blames mistakes on others, and exudes pessimism in the workplace. Many group members wish the Parasite would leave as soon as possible, since the organization would be better off not having such a person around.

The summary of six studies reported in Kim, Smith, Sikula and Anderson (2011) was drawn upon our previous research (Kim & Sikula, 2005; Kim & Sikula, 2006; Kim, Sikula & Smith, 2006; Kim, Cho & Sikula, 2007; Kim, Arias-Bolzmann & Smith, 2008; Kim, Arias-Bolzmann & Magoshi, 2009), which made use of eight sets of survey data (three from the U.S., two from Chile, and one each from India, Korea and Japan). We recognize the difficulty of this undertaking, for the respondents in these data sets operate in different types of workplaces and, more generally, in different socio-cultural environments.

Workplace settings can vary in many different ways. The traits and behaviors that characterize Necessities, Commoners, and Parasites, for example, may depend on the workers’ occupations, assigned tasks, and positions in the organizational hierarchy. The structure of the organization itself also determines, in part, what traits and behaviors characterize each category of worker. More broadly, cultural attitudes towards age, gender, religion, or ethnic background, along with societal views on the nature of work and success, will also matter.

People’s perceptions of the traits and behaviors that characterize each of these three categories of workers may also vary across cultures. Human beings are by nature socio-cultural creatures. Their behavior is influenced by the norms and values of the society to which they belong, and they act in a manner to suit the nature of their traditional cultures. For example, education and training received in childhood can create differences in personalities and cultural values, which in turn can

make people perceive education and training differently (Newcomb, 1950). Hofstede (1980) focuses on the differences culture can make in a workplace setting. For example, Americans have a high degree of individualism and a short-term orientation, whereas Japanese score high on collectivism and on having a long-term perspective. Perceptions of the characteristics of Necessities, Commoners, and Parasites should therefore differ across U.S. and Japanese workplaces. More generally, we recognize that cultural differences across the U.S., Japan, Chile, Korea, and India may influence the ways in which each country's respondents perceive Necessities, Commoners, and Parasites.

Nevertheless, our analysis of the data used in these previous studies does in fact reveal a general set of traits and behaviors that characterizes each of these three categories of workers—particularly for Necessities. Managers in any organization should be interested in finding and attracting people labeled Necessity. Knowing the general traits and behaviors that characterize people as Necessities will help managers recruit the right people, and decide how to make good use of their current employees.

From the previous studies on this topic, the authors have concluded that 1) there is a high degree of commonality in Necessity traits among different socio-cultural environments compared to the traits for the Commoners and the Parasites, 2) it may be highly practical to pursue finding the Necessity traits for business practitioners as their human resource tool to select the right persons for their organizations, and 3) we need to collect data from actual working people instead of only collecting data from students to increase the reliability and validity of the concept.

Therefore, the purpose of this paper is to identify the key traits and behaviors that characterize Necessities among working employees and compare it with the previous studies whose data was collected only from business students.

COLLECTION AND ORGANIZATION OF THE DATA

The process of collecting and organizing the data in all six previous studies was identical to that used in Kim & Sikula (2005). After explaining the definitions of Necessity, Commoner, and Parasite to the students, one of the authors in each country asked each student to voluntarily turn in a list of 10 traits and behaviors describing each type of worker, for which the students received bonus points as an incentive to participate. The responses were tabulated for frequency within each category (Necessity, Commoner, and Parasite). If a response was too generally stated, or too similar to the overall descriptor of each category, it was discarded. For example, responses such as "hard to replace" and "vital person" define a Necessity and hence are not traits or behaviors that characterize the person who is a Necessity. These were discarded.

The usable responses were then grouped together according to the words' meanings through a two-step process. First, a simple table for each category was created by listing all the responses, from most frequent to least frequent. Second, a more specific frequency table was constructed by organizing all the responses in each category into a set of headings and subheadings. The following two examples illustrate the process. In developing the frequency table for the Necessity category, we were able to group many responses under subheadings such as Responsible, Punctual, Dedicated, and Organized. These subheadings were then placed under the broader heading of "Reliable." The final frequency table for the Necessity category contains 17 headings such as "Dependable" and "Hard Working," with a varying number of subheadings under each.

To collect the data from working employees, we designed a two page survey which closely follows the same method that we gave to students verbally but in a written statement. The rest of data handling process was identical as the previous studies. As stated, we included only the traits and behavior of Necessity excluding Commoner and Parasite.

The participants' profiles provided much valuable information. The 94 participants included 52 males (56.5%) and 40 females (43.5%). The majority of the participants work in the Health Care industry (40.4%), were over 55 years old (36.6%), and have worked in the current company between 5-10 years.

The frequency of the entries of the Necessity Employee Characteristics (NEC) ranged from 3 to 163. The top five ranked NEC were trustworthy ($f = 163$, 20.95%), caring ($f = 134$, 17.22%), dependable ($f = 101$, 12.98%), hardworking ($f = 62$, 7.92%) and goal oriented ($f = 48$, 6.17%). The lowest five ranked NEC were successful ($f = 3$, 0.39%), calm ($f = 6$, 0.77%), confident ($f = 21$, 2.7%), ethical ($f = 21$, 2.7%), and outstanding communication skills ($f = 21$, 2.7%).

ANALYSIS OF FINDING AND CONCLUSIONS

Below, in Table, 1, we compare the summary findings in between students (Kim, et al, 2011) and employee data by highlighting the five characteristics most frequently identified for both findings. As shown in Table 1, the key traits and behaviors that characterize a person of Necessity in the workplace are all positive and are very similar between the two studies.

The perceptions of what characterizes really good workers (people of Necessity) appear to be similar among students and working employees. These results imply that companies in all organizations should seek to hire employees who are Hard Working, Reliable (Trustworthy & Dependable), Friendly (Caring), Motivated (Goal Oriented), and Knowledgeable.

At a glance, there appears to be some differences between Student Necessity Characteristics (SNC) and Employee Necessity Characteristics (ENC). It looks like Hard Working is the only identical trait and behavior among five identified ones. It was very interesting that Trustworthy is the number one characteristics in ENC. Loyalty and trust must be very important traits/behaviors among working people. One CEO of a company mentioned to one of our authors while collecting data that Loyalty is the only

TABLE 1

The Comparison between Student and Employee's perception on Principle Characteristics of Necessities

Student's Perception (SNC)			Employee's Perception (ENC)		
296 Participants with 1850 Responses			94 Participants with 778 Responses		
	Entries	Percentage		Entries	Percentage
Hardworking	316	17.08	Trustworthy (Reliable)	163	20.95
Reliable	270	14.59	Caring (Friendly)	134	17.22
Friendly	238	12.86	Dependable (Reliable)	101	12.97
Motivated	192	10.38	Hardworking	62	7.97
Knowledgeable	175	3.46	Goal oriented (Motivated)	48	6.17

important trait/behavior for his company. At the same time, we may consider Trustworthy as one source leading to Reliable. Although it may not clear the cause & effect relations among these traits/behaviors, we may also consider Dependable as one source leading to Reliable. Likewise, we may also consider Caring and Friendly as very similar concepts

According to Ed Locke's (1968) goal setting theory, setting specific goal(s) would lead to an individual's strong internal motivation to achieve it; therefore, we may consider that Goal Oriented would lead to Motivated. Upon these analyses, we could consider 80% of traits/behaviors are the same concept. Hard Working is identical (20%), and Trustworthy-Reliable, Dependable-Reliable, and Goal Oriented-Motivated are similar (60%) in both studies.

It is also interesting that Knowledgeable does not appear to be important in ENC, which is 5th place in SNC. The closest traits/behavior to knowledgeable in ENC is Intelligence, which is 8th ranked in SNC, although it is a slightly different concept. One more big difference between these two studies is communication skills, ranking 6th in SNC and ranking 13th in ENC. Knowledge and communication skills are not considered important traits/behaviors among working people.

To get the SNC, we had eight data sets from five different countries, and for our current study, we have collected data from 94 employees from five different companies in the same region. To develop our analysis of different types of employees further, and to make it more practically useful, we would first like to collect more data from employees and

managers in various industries to see whether their responses differ significantly from those of the students we have already surveyed. Second, for practical purposes we should explore the category of Necessity more carefully and completely, since our goal is to provide Human Resource departments with the ability to identify those individuals who are most likely to promote the success and growth of organizations and businesses.

One way to do this would be to create a scale along which we can rank the differential importance of the key characteristics of Necessities. This scale would allow managers to focus their hiring and promotion/retention efforts on those individuals with the most desired characteristics. Such a scale, therefore, would be invaluable in Human Resource Management.

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Job Calling, Work Identity and Job Crafting: a Theoretical Paper

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ABSTRACT

Many employees are seeking meaning and purpose in their working lives. Some perceive that they have a calling, a pull to do work that serves a greater purpose for others and society. Individuals across different kinds of occupations may perceive that they have a calling. This job calling may lead some employees to enact strategies such as job crafting, which is manipulating the job demands and job resources in their work to enhance their work identities and to live out their job calling or be closely aligned to it in their work. Thus the purpose of this theoretical paper is to propose that job crafting strategies such as increasing the structural and social resources in one's job may lead to higher work identification and a possible closer alignment to one's calling. Likewise increasing the challenging demands and decreasing the hindering demands in one's job may also lead also to higher work identification and a closer alignment to actualizing one's calling. Recommendations are then made on further studies on the relationships of job calling, job crafting and work identity. Implications for employees, management and HR are also highlighted.

INTRODUCTION

Man either views his work as a job (to fulfil his or her financial needs), as a career (to obtain occupational advancement) and/ or as a calling (to fulfill a higher purpose such as meeting a societal need) [1]. The latter has received considerable research attention in organizational studies [2][3] over the last couple of years, even though calling was previously a construct studied mainly through religious studies. [4]. Calling which is defined as "work in which one's lives one's purpose" [5] is shown to be an important work life aspect of people across different levels and occupations [6]. It is not just associated with individuals who work in religious institutions. Calling is associated with experiences of meaning and is becoming a key motivational driver or orientation in the lives of people. "Man's search for meaning" as originally coined from Victor Frankl [7] is being reiterated in boardrooms, offices and factories all across the world. There is a greater drive towards experiencing spirituality in the workplace, thus a greater emphasis on finding and living one's calling [8]. Although studies on job calling have shown that it is related to occupational identity and meaning [9], none have examined how people may potentially utilize job crafting strategies to enable them to live out their calling. The purpose of this paper is then to propose that some individuals may aim to align themselves closely to their callings, so as to

actualize it through proactive behavior such as job crafting, which may lead to the enhancement of their work identities. Firstly literature on job calling, work identity and job crafting is presented and thereafter a discussion follows on how the four job crafting strategies can be used to build work identities in the aim of living out a calling.

JOB CALLING

Calling is defined as "a transcendent summons, experienced as originating beyond the self, to approach a particular life role in a manner oriented toward demonstrating or deriving a sense of purpose or meaningfulness and that holds other-oriented values and goals as primary sources of motivation" (p. 427) [10]. Furthermore, calling has been delineated into perceiving a calling and living a calling [11]. Perceiving a calling relates to whether an employee feels that they have a calling to their current kind of work or career. Living a calling on the other hand relates to more on whether an individual perceives that they are currently living out their calling in their lives and work [12]. Furthermore it has been argued that people who live out their calling experience a deeper sense of purpose and meaning in their lives [13] [14] which consequently leads to greater job and life satisfaction [15]. For this reason the important role that calling may have on employees should be noted. What is also particularly highlighted in the literature, is how people who perceive and live out their calling see that they have a duty to help others [16], even in jobs that may seem as demeaning or unlikely in society such as funeral undertakers or cleaners [17]. Some workers for example like zookeepers may be willing to sacrifice a lot of themselves and their needs so that a need in society can be met [18]. Studies on calling have also shown how it is related to occupational identity (a facet of work identity) [19], work engagement [20] and career commitment [21].

WORK IDENTITY

Work identity is how individuals identify with the different facets of their work such as their occupational groupings, the organization that they work for, the type of tasks that they do and how central work is to their lives. It has been defined as "...a work-based self-concept, constituted of a combination of organisational, occupational, and other identities that shapes the roles a person adopts and the corresponding ways he or she behaves when performing his or her work" (p. 2) [22]. It is also defined as a "...a multi-identity, multi-faceted and multi-layered construction of the self (in which the self-concept fulfils a core, integrative function), that

shapes the roles individuals are involved in, within their employment context.” (p. 31) [23]. Work identity is shown to consist of three dimensions which are work centrality, person-organization fit and value congruence [24]. Further studies have also examined how specific job demands such as overload and specific job resources such as organizational support and advancement opportunities may predict work identity [25]. Consequently work identity is built through the interplay of job characteristics (job demands and job resources) with an individual’s dispositions [26]. What is further known and discussed in the next section, is how individual employees play around or manipulate the respective job demands and demands and job resources) with an individual’s dispositions [26]. What is further known and discussed in the next section, is how individual employees play around or manipulate the respective job demands and resources within their work to attain higher work identity levels. This is accomplished through job crafting [27]. Work identity is also known to predict work engagement [28]

JOB CRAFTING

Job crafting, an individual job redesign activity is described “as the physical and cognitive changes individuals make in the task or relational boundaries of their work” (p. 179) [29]. A later definition of job crafting by [30] defines it as the “proactive employee behavior consisting of seeking resources, seeking challenges, and reducing demands” (p. 1122) [31]. This definition was built on the job demands and job resources model [32]. The Job Demands Resources (JD-R) model was developed by [33]. Job demands refer “...those physical, social, psychological, or organizational aspects of a job that require sustained physical and/or psychological effort on the part of the employee and are therefore associated with certain physiological and/or psychological costs” (p. 501) [34]. Job resources on the otherhand are “...those physical, psychological, social or organizational aspects of a job that either/or (1) reduce job demands and the associated physiological and psychological costs; (2) are functional in achieving work goals; and (3) stimulate personal growth, learning and development” (p. 501) [35]. In later studies on job crafting, it was established that it has four job crafting dimensions, two of which are job resources and two which are job demands. Job resources are divided into structural (such as skill variety and autonomy) and social resources (such as social support and feedback) [36]. Employees will seek to increase these two different resources as they craft. Job demands are divided into challenging demands (such as taking on extra tasks) and hindering job demands (such as making work less mentally and emotionally intense). Employees will seek to increase challenging demands, and decrease the hindering demands as they craft. The crafting process enables employees to enhance their sense of wellbeing [37]. Job crafting is also regarded as means by which people enhance their work identities [38].

LIVING OUT OR ALIGNING ONESELF TO ONE’S CALLING AND WORK IDENTITY BY MEANS OF JOB CRAFTING

As stated earlier, recent studies on job crafting reveal that employees use four different strategies to craft their jobs.

One such strategy is that of increasing structural job resources by for example taking up more training opportunities, and seeking higher levels of autonomy in their jobs [39]. Increasing structural resources through crafting brings about more structural resources and is shown to elevate levels of wellbeing such as work engagement [40]. This finding is highly significant for the building up of work identity. As employees grow in their respective work roles they may seek to increase more structural resources that would enable them identify more strongly with certain aspects of their work in which they derive a greater sense of purpose. This becomes even more crucial when a person links their calling to their career or work [41], it is then assumed that they would choose to increase those structural resources that would help to facilitate a closer navigation towards fulfilling a higher purpose or greater good for society. As structural resources such as learning opportunities increase, so does an employee’s professional identity increase [42]. Learning, development and autonomy, as well as skill variety also leads to an increase in the experience of meaning in one’s work [43], which may in turn lead to a greater sense of actualizing one’s calling, especially if an employee sees that as they gain more skills and knowledge that they are able to serve and help others better. Consequently growth opportunities was shown to predict work identity [44]. This is especially relevant when the skills learnt and opportunities gained help others in a meaningful and purposeful way.

Proposition 1: Increasing the structural resources in one’s job results in higher levels of work identity and may increase alignment towards one’s calling.

Employees may also craft their social resources that they have at their disposal in their jobs [45]. Social resources could include supervisor and peer support, feedback on performance, extending and helping others achieve their work-related goals [46]. These prosocial behaviours help to enhance the relational identities that employees have with others. An employee’s work identity is enacted and lived out through the various roles that an employee fulfils [46]. An employee may for example choose to increase his or her managerial responsibilities thus increasing his or her influence over more people with the sole purpose of wanting to help others. Helping others is considered a key motivation for striving to live out one’s calling [47]. Employees may also deliberately use networking or social lobbying [48] to establish relationships that may lead to alternative avenues to live out their calling. As calling is considered something going “beyond the boundaries of one’s job” [49], some employees may even set up networks outside of their respective

jobs to achieve set milestones that bring them closer to living their calling or dream or higher purpose for their lives. As an employee works on this through crafting, it is assumed that the professional or career identity of the individual is also simultaneously enhanced. This thus builds the individual's work identity.

Proposition 2: Increasing the social resources in one's job may lead to higher levels of work identity and an increase alignment towards one's calling.

Another way in which employees craft their jobs is through increasing their challenging job demands [50]. Challenging job demands include taking on extra tasks, starting new projects, and getting involved in more projects than required [51]. Increasingly more organizations' jobs or tasks are becoming automated in this digital age, so employees have to find novel ways to keep themselves engaged in their work. Multiskilling themselves may be an option to fulfil any job that is required and available and keeping abreast of current and future trends. Skill variety is a known motivator for employees [52]. Some employees may choose to do much more than their normal call of duty or work responsibility, so as to fulfil the greater strategy of the organization, especially if their values resonate greatly with the values of the organization [53]. With the increase drive for organizations to be more socially responsible, employees may be given more of themselves if they view these extra roles as a calling to make a difference in the lives of others [54]. Ultimately their work identity would be enhanced as they are not just contributing to themselves but also to a greater cause. Some jobs for example such as the work of policemen and soldiers require employees to be exposed to violence, physical danger and other human atrocities, but these employees may feel it is a calling to serve others this way [55].

Proposition 3: Increasing the challenging job demands in one's job results in higher levels of work identity and an increase alignment towards one's calling.

Employees crafting their jobs may also engage in the practice of decreasing their job demands, such as avoiding emotionally draining colleagues, ensuring that their work is not overly mentally taxing and difficult to do and manage [56]. As employees engage in this practice they experience a higher sense of control over their work, thus leading to a greater sense of wellbeing. This thus enhances their work identity. They may also find as they decrease the demands that burden them in their work roles, they may find more time to do tasks and projects in which they derive more purpose and meaning, which may be more aligned to their calling.

Proposition 4: Decreasing the hindering job demands in one's job results in higher levels of work identity and an increase alignment towards one's calling.

RECOMMENDATIONS FOR FURTHER RESEARCH

It is recommended that these propositions on the possible relationship that job crafting, job calling and work identity may have with one another be tested empirically on different occupational groups and within different contexts.

IMPLICATIONS FOR EMPLOYEES, MANAGERS, ORGANISATIONS AND HR.

Organizations and managers can leverage the individual job design efforts of their employees by encouraging job crafting to maximize employee and team performance. Managers can implement job crafting learning interventions for their employees. They can also encourage more work discretion and participative decision-making practices in their workplaces [57]. HR should assist line managers to help create work environments that facilitate greater experiences of meaning and purpose for employees.

CONCLUSION

With the increase of people seeking meaning and purpose in the workplace, the issue of calling should take more prominence in HR and management decisions.

References will be made available upon request

A content analysis of the HR skills in high demand

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ABSTRACT

Research, conversations and debates on the key HR skills in high demand have produced significant implications for the development of new competency models. Globally, studies have been undertaken on the new competencies which should define the HR business partner of the 21st century. The HR competency model of the Society for Human Resource Management (SHRM) was used to determine the extent to which the HR vacancies reflect critical skills during the year 2015 in a South African newspaper. The study found a 21% high demand for verbal and written communication skills, followed by business acumen at 18.2%. Ethical practice is low at 0.3%. The outcome of this research adds to the ongoing expectation for HR Professionals to grow their business acumen.

INTRODUCTION

Newly emerging HR competency models define the critical skills in high demand for the 21st Century HR business partner. These models are expected to leverage the skill composition of the HR business partners to be able to deal with high complexities of the volatile business environment [1]. Internationally, the efforts to professionalise the HR practice have been met with setbacks mostly due to the lack of HR skills to successfully pursue the business objectives. In order to better manage this expectations, the broad HR community across the globe has embarked upon key strategic interventions to identify the critical HR skills in high demand. Comprehensive competency models containing the HR functions and activities have been developed and tested for practical considerations [1] [2] [3] [4]. Of utmost importance is the alignment of the competency models with key roles and recruitment activities to ensure the attraction of the required skills [5]. To this end, it is expected that the type of HR skills reflected in the job advertisements matches the company's competency model. This area of recruitment has received minimal attention and hence this study applies a content analysis technique to assess the HR skills in high demand from the job advertisements.

LITERATURE REVIEW

Considerably, extensive research has been covered on the importance of HR competencies in the business. As companies enter a new dawn of the information

age, the HR community is expected to raise the bar and live up to the call for strategic business partnership with line managers. Scholars have

presented sufficient evidence of the required HR skills for business success [1] [2] [3] [4] [5]. Coupled with this are key roles which must be fulfilled for achieving business outcomes [1].

According to [6] the roles of HR business partners should transcend towards strengthening the global thinking of employees and embrace cross-cultural environments. [1] and [2] reaffirm the importance of HR competencies in critical roles.

Clearly, the proliferation of HR competency models are indicative of attempts to elevate the profile of the HR profession. With the aim of enhancing the credibility of the HR profession, the Society for Human Resource Management (SHRM) has recently undertaken a fact finding exercise with more than 1200 HR Professionals across 29 cities in eight countries to develop the latest competency model for consideration [3].

Prior to this, one of the other global interventions saw the development of six fundamental competency domains under the stewardship of the RBL Group and the Ross School of Business, University of Michigan [2].

In 2013, the South African Board for People Practice (SABPP) produced an HR Competency model through consultation with HR Professionals. Lastly, the Institute of People Management (IPM) in South Africa also used a consultative approach to construct an HR Competency framework.

The next section will present the key features of some of the existing HR competency models:

HR Competency models

The 2012 HR Competency framework

In order for HR business partners to impact the organisational performance, 2012 Global Human Resources Competency Study (HRCS) produced six fundamental competency domains which are strategic positioner, credible activist, capability builder, change champion, human resource innovator and integrator as well as the technology proponent. These competencies represent the required skills of HR business partners for achieving high performance standards [2].

SHRM HR competency model

The key elements of the SHRM HR competency model are HR technical expertise and practice, relationship management, consultation, organisational leadership and navigation, communication, global and cultural effectiveness, ethical practice, critical evaluation as well as business acumen. Specifically, this intends to enhance the profile of the HR Profession by developing well-rounded business partners with skills to be able to internalise business strategies and make valuable HR contribution[4]. The SHRM HR

competency model is well founded on research and has been validated throughout organisations globally [3]. This makes this framework a useful tool to measure the HR competency profile and HR skills in high demand.

The South African Board for people Practice (SABPP) HR Competency Model

In South Africa, the National HR Competency Model was developed under the leadership of the SABPP. With the same intention of the other models world-wide, this model also intends to leverage the HR Profession by directing investments in HR training towards the key competency domains which are required to make business successful. The model contains five core competencies, namely, leadership and personal credibility, organisational capacity, solution creation and implementation, interpersonal and communication as well as citizenship for the future which includes innovation, technology and sustainability. Mainly, the functions of HR Competency models including this one should be aimed at aligning HR education with the critical skills in high demand, enhance the experience of HR business partners, create standards of HR application and certification [3] [4].

The Institute of People Management (IPM) HR Competency framework

Additionally, the South African HR Professionals embarked upon another exercise through the IPM to develop a competency framework focused on building capability to deliver with impact. This model seeks to enable the HR Professionals to find answers to these questions and align their education accordingly:

- What role does HR play in delivering value currently?
- How do I currently deliver?
- How do others perceive my delivery?
- How are the solutions to build capability and maturity?

In dealing with questions, IPM anticipates that the HR Professionals will be better positioned to contribute significantly to the business.

Amid these continuous efforts to enhance the profile of the HR profession, HR competency models have not yet been fully explored to determine whether organizations apply these frameworks to attract the critical HR skills in high demand. Job advertisements are the main tools to communicate the required skills which the HR business partner must possess in order to be considered for employment and yet these ads still fail to attract the required HR skills. Accordingly, job advertisements must contain keywords which are embedded in the required competencies [5]. Therefore, the underlying question of this is:

- To what extent do the job advertisements for the HR positions in South Africa reflect the skills in the HR competency model?

Specifically, this research selected the SHRM HR competency model because of its broad global consultative input and the fact that it has been validated with international organisations.

RESEARCH DESIGN

Research method

A content analysis on the job advertisements of the HR positions was conducted from one of the South Africa's Sunday newspaper for the period of 2015. This method is useful in identifying skills in high demand by organisations [5] [7].

Data collection

Firstly, the Organising Framework for Occupations (OFO) formed the basis for identifying the HR vacancies with skills in high demand. Secondly, the SHRM HR competency model was used to identify keywords from the adverts which match the framework's competencies of interest or skills required from the HR business partners. Specifically, the job specification section of the adverts which lists the competencies and/or skills required was the main area of data collection. This search revealed a 4% HR vacancy rate of 467 vacancies 2015 from the total jobs advertised in that publication only. The SHRM Competency framework was used to breakdown keywords / phrases to monitor frequency of use across all the HR vacancy advertisements. [5] [7] followed the similar process to identify leadership skills in high demand, but did not make of a predefined competency framework.

Measuring instrument

The study did not apply a scientific measurement instrument, but used the SHRM HR competency model as a content analysis framework to measure the HR skills in high demand from the job advertisement. The SHRM HR competency model consists of 9 competency domains with 93 competencies or skills of interest. Accordingly, the HR technical expertise and practice contains 10 skills required, relationship management 16, Consultation 10, Leadership and navigation 10, Communication 11, Global and cultural effectiveness 9, Critical evaluation 9, Ethical practice 6 and Business acumen 12. Tied to these is the expected educational level, professional certification level and the required experience [3].

Data analysis

HR vacancy data extracted from the newspapers was captured on the Microsoft Excel Spreadsheet. Frequency counts were conducted by pairing the HR skills from the newspaper against the skills in the SHRM competency model. These were cross-tabulated to present the number of times HR skills in the SHRM competency model are reflected in the HR specific adverts. In this case, text data gets converted into numbers to establish the frequency of keywords representing skills which appear in the newspaper [8]. Furthermore, this research established how the HR vacancies with different qualifications reflect skills in the SHRM competency model. Job adverts normally reflect the required qualifications for specific competency

levels for matching candidates' capabilities with the inherent requirements of the job [9].

RESULTS

Results of this research are presented below in descriptive frequencies and cross tabulation. Firstly, Table 1 demonstrates the extent to which the job advertisements for the HR positions in South Africa reflect the skills in the SHRM HR competency model:

Table 1: HR Skills in High Demand

SHRM Competency Domain	%
Communication	21
Business Acumen	18.2
Consultation	15.6
HR Expertise	13.7
Critical Evaluation	11.5
Relationship Management	10
Leadership & Navigation	9.6
Diversity & Inclusion	0.4
Ethical Practice	0.3

The most sought after HR skill counted from a total 467 vacancies is verbal and written communication. Although business acumen is presented herein as the second most highly demanded skill, most vacancies do not reflect such skills as business knowledge, economic awareness, knowledge of finance and accounting and HR Metrics and Analytics which are mainly considered pivotal in positioning HR Professionals as key strategic business partners. Instead most skills in high demand reflected under this domain is the ability to use Microsoft Package and legislation knowledge.

Results of the HR skills in high demand by qualifications are presented in Table 2 below:

Table 2:
HR Skills in High Demand by Qualifications

SHRM Competency Domain	UG	PG
Communication	13.8	0.8
Business Acumen	13.0	1.2
HR Expertise	10.2	1.9
Relationship Management	9.1	0.6
Consultation	8.9	0.5
Critical Evaluation	8.3	0.7
Leadership & Navigation	6.5	0.6
Diversity & Inclusion	0.43	0.43
Ethical Practice	0.43	0.0

Similarly, verbal and written communication skills are highly represented in most of the HR job vacancies followed by business acumen and HR expertise. These results add to the paradox of HR skills required against the supply. While business acumen is reported to be the most significant set of skills required to enable HR business partners, South African organisations are found to be more attracted to verbal and communication skills. This might not be a true reflection of what is exactly being sought after as HR skills. There is a possibility of an oversight on how the real skills in high demand are being communicating in the job advertisement.

DISCUSSION

Managerial implications

It is clear that there is a total disconnect between what is regarded as HR skills in high demand as advertised on the job adverts and what companies in South Africa aim to achieve in attracting the HR talent. The SHRM competency model indicated the extent to which most companies do not pay attention to the keywords which reflect skills in high demand when they advertisement, which results in a complete mismatch between the available and expected HR skills.

Possible limitations of the study

The use of the SHRM HR competency model in this research was not subjected to reliability and validity tests to determine its relevance, usefulness and for mitigating the risks of biasness.

Suggestions for future research

To validate the SHRM competency model with HR vacancy data.

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I-deal, I-craft, I-perform: A theoretical framework

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ABSTRACT

Employees are becoming more responsive to the demands placed upon them in the workplace. Employees continuously seek ways to enhance their work performance. Notably, employees may put forward and negotiate certain work arrangements with their employer referred to as idiosyncratic deals. Employees may also alter the way in which they work, referred to as job crafting. The study is qualitative in nature and presents a conceptual paper. The paper presents a research model of idiosyncratic deals, job crafting and work related performance and sets out to identify research propositions that can be tested empirically. The study contributes to the literature of idiosyncratic deals and job crafting, and fills in the gap in the literature of these two variables by linking it to work related performance. Furthermore, the study puts forward propositions, which when tested empirically have the potential to enhance the way in which employees work, craft their work and increase individual performance.

1. Introduction

In the past decade, the practice of human resource (HR) management have transitioned towards greater individualization of work. (Rousseau, Hornung, & Kim, 2009). The way in which work has been performed has changed. Even so, the way in which jobs are designed have changed. Through these changing times, employees have engaged in proactive behaviors in the workplace, which are characterized as self-initiated and future oriented with a focus of changing work roles and hence, impacting individual performance.

The concept of i-deals has come in to play more recently, and has flourished over the last decade (Bal & Lub, 2016; Rousseau, 2001, 2005) Over the last decade, studies on idiosyncratic deals (i-deals) have increased and have been linked to job satisfaction (Rosen, Slater, Chang & Johnson, 2013), organizational citizenship behaviours (Anand, Vidyarthi, Linden & Rousseau, 2010), and organizational commitment (Hornung, Rousseau, & Glaser, 2013; Liu, Lee, Hui, Kawan, & Wu, 2013). The premise of i-deals are the benefits derived between the employer and employee.

Based on the research model in Figure 1, the study intends to provide propositions in terms of i-deals and work related performance, and its moderating variable job crafting.

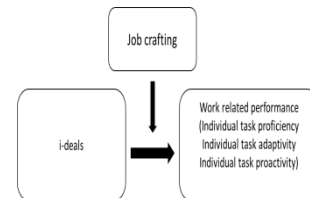


Figure 1: Research Model: The relationship between i-deals and work related performance, with job crafting as a moderating variable.

Proposition 1: i-deals will enhance work related performance.

Proposition 2: job crafting moderates the relationship between i-deals and work related performance.

Empirical studies conducted on i-deals have identified that employees respond in a positive manner when offered special work arrangements (Hornung, Rousseau, & Glaser, 2008; Rosen et al., 2011). Notably, i-deals bring about positive benefits to the organization and employees (Rousseau, Ho, & Greenberg, 2006). However, there is a lack of empirical evidence about the effects of i-deals on individual's work role performance. A notable gap in the literature exists. There is an important need to address this because, without establishing a relationship between i-deals and work role performance, the return on the investment in allowing i-deals remains unknown towards work role performance.

2. Idiosyncratic deals

In the contemporary organization arrangements are made between the employee and their employer. Such an arrangement is referred to as i-deals (Rousseau, 2001). The concept of idiosyncratic deals relates to the type of personalized agreements made by employees (voluntary) to their employer and the personalized changes in work and employment conditions in a manner that benefits both parties (Rousseau, Ho & Greenberg, 2006). Such changes and arrangements are negotiated with their employer or its agents (Rousseau, 2005).

Furthermore, i-deals extends itself towards the changing nature in which work is carried out, flexibility in the work place practices and the rise of virtualization are among the changes which are likely to lead conditions for i-deals (Feldman & Pentland, 2003; Tietze & Musson, 2003). Notably, the concept of i-deals are seen as the underpinnings from the social exchange theory (SET) (Blau, 1964) and the norm of reciprocity (Gouldner, 1960). Hence, such an arrangement is based in the exchange relationship between the employee and

the organization (Bal & Lub, 2016). In terms of i-deals in the workplace, it has been noted that it can be utilized to retain, reward or even recruit high performers (Conway & Shapiro, 2016). In addition, i-deals are characterized by providing mutually beneficial effects namely, improved work life balance and motivation, and work-life balance (Rousseau, 2005; Rousseau et al., 2006; Hornung et al., 2008).

2.1. Theoretical background of i-deals

Rousseau's (2001, 2005) seminal work have brought much attention to the concept of i-deals. Research on i-deal have said to include, antecedents, consequences and the negotiation of i-deals (Hornung, Rousseau & Glaser, 2008; Rousseau, Hornung & Kim, 2009). In light of this, other studies have measured i-deals (Rosen, et al., 2013). The underpinnings of the way in which i-deals are operationalized in the workplace stems from the SET (Blau, 1964) and the norm of reciprocity (Gouldner, 1960). The SET postulates that reciprocity in relationships, in terms of contributions and favors, are maintained even when one is not required to do so (Blau, 1964). Notably, i-deals hold a vital position in the employment relationship (Bal & Rousseau, 2016).

In terms of applying this theory in the context of i-deals, employees are likely to feel obliged to reciprocate through positive work behaviors. Notably, employees' reciprocation are likely to vary depending with whom they negotiate (Lavelle, Rupp, & Brockner, 2007). Employees negotiate i-deals between themselves and their employers. I-deals are regarded as a way to reciprocate for employee's contributions. In terms of i-deals, the SET acts as a framework for explaining why employers are likely to grant i-deals to some employees and why employees with i-deals respond in the way they do.

2.2. Development of i-deals

The timing of i-deals may be negotiated at specific points of time namely, during the recruitment process (ex ante i-deals) or on the job (ex post i-deals). According to Rousseau et al., (2006), ex post i-deals transpire more often than ex ante i-deals. There have been empirical studies on ex post i-deals (e.g., Ho & Tekleab, 2013; Rousseau & Kim, 2006). Ex post i-deals have a strong focus on the SET which acts as an explanatory mechanism within the literature of i-deals. Once employees are hired, they are likely to negotiate i-deals as the exchange relationship with their employers begin. Ex ante i-deals refer to arrangements granted based on the individual's competencies and other characteristics that reflect their worth (Rousseau et al., 2006).

2.3. Characteristics of i-deals

I-deals can be characterized as *heterogeneous* creating an environment where people are treated differently in the same organization and differ in the

terms of agreement that differ with other employees. Employees may successfully negotiate i-deals, and might be perceived as favoritism by other colleagues (Bal & Rousseau, 2015; Rousseau, 2001). The negotiation of special arrangements creates an environment to be desirable by meeting the personal needs of employees and increasing the productivity in organizations. In hindsight, i-deals are characterized as *beneficial to both parties* (Bal & Rousseau, 2005; Guerrero, Bentein, & Lapalme, 2014; Ho & Tekleab, 2016; Rousseau, Ho & Greenberg, 2006). Arrangements negotiated may *vary in scope* namely, employees may negotiate career advancement opportunities versus flexibility (Bal & Rousseau, 2015).

The type of i-deals that may be arranged in organizations namely, *development i-deals* whereby employees customize their work tasks and negotiate special arrangements for training. (Hornung et al., 2009). *Flexibility ideals* refers to restructuring workload to meet individual needs. *Reduced workload ideals* refers to the way in which employees adjust their workloads (Guerrero et al., 2016).

3. Work role performance

Organizations operate in an environment that are continually changing and hence, the change in work. Employees are required to perform their work in a way that contributes towards the organization, as outlined in their job description (Chan & Rasli, 2013).

Work role performance refers to the cross-classification of the three type of individuals behavior namely, proficiency, adaptivity, and proactivity towards the effectiveness of an individual, team, and organization. In terms of the current study, it will look at the individual level. Work roles are defined as "the total set of performance responsibilities associated with one's employment" (Murphy & Jackson, 1999, p. 335). Notably, work role behaviors are perquisites to performance and in different situations such as organizations that are experiencing certain complexities or undergoing change (Neal, Yeo, Koy, & Xiao, 2012).

In terms of the current study, work role behaviors at and individual level refers to individual task behaviors (Griffin et al., 2007). This relates to behavior that contributes to individual effectiveness, namely:

- Individual task proficiency – refers to when core tasks of the job are completed properly. Employees display behaviors where they are able to meet the expectations and requirements of the job (Griffin et al., 2007) and is closely related to task performance (Johnson, 2003).
- Individual task adaptivity - the way in which employees are able to adapt to core tasks. Furthermore, task adaptivity refers to the way in which employees respond to and cope with

changes that affects their roles (Griffin et al., 2007).

- Individual task proactivity – when core tasks are done in a better way. Employees engage in future oriented behaviors characterized as self-starting required to change individual work roles, situations or themselves (Griffin et al., 2007).

4. Job crafting

Employees are actively seek out the way they perform their job, as well as actively embark on changing the design of their jobs (Parker & Ohly, 2008). Such changes are referred to as job crafting which was introduced by Wrzesniewski and Dutton (2001). Job crafting is considered a proactive behavior that requires the adaptation to challenges and constraints posed by one's job. Wrzesniewski and Dutton (2001, p. 180) defined job crafting as "the actions employees take to shape, mould, and redefine their jobs".

The literature of job crafting contributes to the traditional job design theories (job characteristics) (Hackman & Oldman, 1980), and the interdisciplinary approach to job crafting (Grant & Parker, 2009; Oldham & Hackman, 2010). Based on this premise, it is noted that job crafting explicitly focuses on job design and hence, employees are likely to be motivated through the design of their job. Oldham and Hackman (2010) noted there is great interest in the ways in which employees influence or shape their jobs. This is contextualized in the fact that employees have the flexibility to modify their jobs. According to Demerouti (2014), job crafting presents the case that organizations are likely to improve employee working conditions by encouraging them to craft their jobs.

In terms of the study, it sets out to note that employees in the workplace make changes to their job (job crafting) and hence, impacting their workplace related performance. According to Berg et al., (2013), job crafters reshape their work through: *Task crafting* – occurs when employees make changes to their set of responsibilities and hence, alter their job descriptions. *Relational crafting* – relates to how and when employees interacts within the execution of their job. *Cognitive crafting* - occurs when employees alter the way in which they perceive their work namely, tasks and relationships.

5. Methodology

The study is qualitative in nature, and data is collected through various secondary data and presents a conceptual/theoretical based paper. The study reviewed various literature on i-deals, work related performance and job crafting. Notably, the study presents the opportunity for the constructs to be tested empirically.

6. Discussion

The study conceptualized the research model (Fig 1) and put forward two propositions. From the

literature review, it can be noted that employees negotiate certain arrangements with their employer (i-deals). From this, the study investigated the propositions made theoretically. Notably, i-deals and job crafting are regarded as job design initiatives. Moreover, it is likely that employees identify new ways to improve and make changes to their work. This type of improvements both refers to job design initiatives. I-deals relates to job crafting, and the latter involves employees altering their task or job characteristics on their own initiative to make their work activities meaningful (Demerouti, 2014). When employees are granted the negotiated arrangements, it is likely that to make proactive adjustments and customize their work activities. Hence, it is likely to increase employees' performance

Since job crafting is a proactive behaviour and leads to such outcomes, it is likely that job crafting may strengthen the relationship between i-deals and work role performance. Notably, employees that are granted i-deals with the expectation of performance (Vidyarthi, Singh, Erdogan, Chaudhry, Posthuma & Anand, 2016). Notably, job crafting and i-deals are similar as both proactively involves changing one's current task (Parker & Collins, 2010). It must be noted that employees craft their jobs without necessarily obtaining the consent of their supervisors (Berg et al., 2010). Conversely, i-deals are provided upon recognition of the immediate line manager (Rousseau, 2005)

Employees engage in proactive efforts and to some extent change aspects of their jobs. Given this, it should be noted that i-deals are negotiated with supervisors, whilst job crafting is self-initiated and hence, more likely to impact work role performance. This is consistent with findings of Rofcanin et al., (2016), which noted i-deals are positively related to performance outcomes. Thus, it can be noted that job crafting may enhance this relationship.

7. Recommendations and Conclusions

There are limited studies on i-deals, job crafting and work role performance. It must be noted that by granting i-deals employees are more likely to adjust and customize their work requirement in order to meet their abilities and preferences, which has the ability to positive work outcomes such as work engagement, satisfaction and improved work role performance. The implications for organizations and HR practitioners, in terms of ideals and job crafting, are that these concepts are able to foster employee proactive behaviors, and enhance key performance outcomes. I-deals and job crafting can be utilized as strategies not only to attract talented employees but also to keep them committed and flourishing (Ng & Feldman, 2012). It is recommended that future research should entail in having the propositions tested empirically.

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The Effectiveness of Customer Service Training Interventions – A Systematic Review of the Literature

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ABSTRACT

Customer Service (CS) training interventions are viewed as a core requirement for frontline staff in the services industry. This study sought to identify the effectiveness of CS interventions to improve CS initiatives in the South African tourism, hospitality and retail industries. A search of the relevant literature was conducted using the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) Guidelines. Peer-reviewed studies were identified using a comprehensive search strategy in four electronic databases namely Ebscohost, Jstor, Sciencedirect and GoogleScholar. Three overarching themes identified in CS training interventions were the shift from training to personal transformation or employee empowerment, behaviour modelling of CS behaviours by employees who had not attended the interventions, and the use of self-management techniques.

LITERATURE REVIEW

In an era of intensified competition for all businesses, Customer Service (CS) is now recognised as a key driver of competitive advantage (Kandampully and Duddy, 2001; Karmarkar, 2004). Whereas competing service companies are often identical in terms of facilities, equipment and service menus, customers continue to distinguish differences in the quality of service they receive. As a result, customers' personal interactions with frontline staff during the service encounter is often the differentiating factor between companies boasting similar service environments and equipment (Zeithmal, 1990 and Weitzel et al., 1989 in Sulek, Lind & Maruchek, 1995). Preceding research (Chase & Bowen, 1991; Bitner, 1990, Berry et al., 1988, Cronin and Taylor, 1992 in Sulek et al., 1995) indicates that the customer and employee interaction can have a substantial effect on customer satisfaction and sales performance, thereby highlighting the business imperative for CS interventions.

METHOD

A search of electronic databases was conducted in October 2015 to assess evidence-based research on CS interventions in organisations using the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) Guidelines (Moher, Liberati,

Tetzlaff, Altman, & PRISMA Group, 2009). Peer-reviewed studies were identified using a comprehensive search strategy in four electronic databases namely Ebscohost, Jstor, Sciencedirect and GoogleScholar. One single coder was used for scoring and assessment, and results were assessed by the team to reduce selection bias. A wide array of search terms were used to ensure all relevant articles were captured. Search terms included: 'CS, casino industry, casino, service industry, CS programme, CS intervention, CS training, service industry, hospitality industry.

Study selection was based primarily on whether the study included an evaluation of a CS intervention. Initially studies that were carried out in South Africa were searched for, as well as studies conducted in the casino industry, however, due to a lack of studies being produced in search results, geographic location, industry and time period were not used as factors for omission. All studies that met the inclusion criteria were captured. The database search identified 3174 studies. 14 studies were found eligible for the review, however after a systematic screening process (see Figure 1), five studies were included in the review due not including interventions ($n = 5$), being industry magazine articles ($n = 3$) or the study being conducted in a unique setting ($n = 1$). Thematic analysis was used to identify common themes that emerged from the data.

DISCUSSION

A conceptual understanding of the reviewed articles points to three levels that CS interventions impact. These are the individual level, the situational level and the organisational level. Individual level factors which have an effect on how employees respond to CS interventions include intrinsic motivation, capability, self-efficacy, organisational commitment, affective and normative orientation, autonomy and hierarchical trust. Situational level factors include how employees respond during the customer-employee interaction. Here aspects such as communication skills such as language, greeting, body language and the ability to improvise as well as self-management and responding to and dealing with customer's, as well as one's own emotions and moods, are brought into light. Organisational level factors include management commitment to CS, CS climate, alignment of HR systems and organisational processes with CS strategy as well as customer expectations generated through feedback

mechanisms. There were three overarching themes identified across studies. Both the interventions by Sturdy (2000) and Pattni (2007) entailed interventions that sought to foster employee empowerment. This also speaks to the shift from training to character formation or personal transformation as mentioned by Sturdy (2000). Other themes that were identified were Behaviour Modelling of CS behaviours by staff who had not attended the interventions as well as the use of self-management techniques in CS interventions. The study by Rice (2009) illustrated the positive impact of managerial task clarification and social praise on frontline CS behaviours, thus pointing to the importance of supervisory feedback in reinforcing appropriate CS behaviours. In addition, both studies by Pattni (2007) and Rice (2009) entailed a degree of behaviour modelling where new employees who did not attend the training were mirroring CS behaviours of participants. The findings, of improved performance in untrained staff, are congruent with Bandura's social cognitive theory which forms the theoretical foundations of behaviour modelling training (BMT). Robertson (1990) notes that BMT perceives individual behaviour as a function of both internal characteristics such as cognition, attitudes, and personality, and external, situational variables. Social cognitive theorists disagree with the notion that only direct and personal experiences influence behaviour but instead have proven empirically that people will learn and change their behaviour after observing the behaviours of others; people can learn vicariously (Robertson, 1990; Taylor, Chan and Russ-Eft, 2005).

RECOMMENDATIONS

This systematic review found a significant gap in the literature to provide guidance to SA organisations in the services industry in terms of CS interventions, and remains a concern considering the poor service standards apparent in the South African services industry (Blem, 2005). As a result, it is recommended that further research is conducted in South African service orientated industries such as retail, hospitality and tourism, to develop locally designed CS training interventions that, as identified in the five reviewed papers, adopt approaches to CS interventions emphasizing personal transformation, employee empowerment, and self-management techniques, and seek to exploit the benefits of behaviour modelling. More importantly, this study calls for further research to identify how cultural values can be mobilised to enhance service interactions in the South African services sector in order to gain a competitive advantage over international tourism markets.

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Application of Multiple Criteria Data Envelopment Analysis Combined with the Overall Equipment Effectiveness in a Brazilian Automotive Company

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1. Introduction

The overall aim of this work was to propose a new indicator called as OME - Overall Machinery Effectiveness to rank machines (DMUs – Decision Making Units) in terms of their efficiency, in addition to identifying targets to make them more efficient. The OME indicator combines Overall Equipment Effectiveness - OEE with Data Envelopment Analysis - DEA (Charnes; Cooper; Rhodes, 1978) and MCDEA (Li and Reeves, 1999) models. The problem involved the application of DEA and MCDEA models for evaluating the efficiency of 20 DMUs, being the database associated to the performance of two presses over a period of ten months, in a Brazilian automotive industry. Data on a period of 10 months, from January to October 2015, was collected for each press. Relevant inputs were: Total available time - represents the time, in hours, available for parts production; Setup downtime - represents the time, in hours, spent on setup; Other downtimes - represent the time, in hours, spent on other downtimes, as the operators' lunch break; Personnel staff - represents the amount of workforce (WF) required to operate the presses line; Scrap generated along the process (undesirable output) - represents the amount of scrap generated during the presses operation. It was considered as output: Production volume - represents the volume produced during the considered period.

Modeling and optimization was performed via VBA and Excel® programming. The results were compared with the OEE indicator calculated by the company which was the object of study. It was analyzed the existing non-parametric correlations between the OEE values adopted by the company and the efficiency values obtained by DEA and BiO-MCDEA models. From these statistical tests, the OME was proposed, a new ranking for DMUs was created and targets were established for non-efficient DMUs.

2. Background, problem description, solution and analysis

DEA models can be input-oriented – with the purpose of reducing the amount of used resources

and keeping the obtained results constant, or output-oriented – seeking to increase the obtained results values and keeping the amount of used resources constant. An important issue discussed by Banker et al (1989) is that, to avoid problems with the discriminating power of DEA models, the number of DMU's must be greater than or equal to three times the sum of the number of variables (inputs and outputs), or greater than or equal to the product of the number of input variables by the number of output variables through adopting a criterion that provides the greatest number of DMU's. This is known as DEA Golden Rules. To avoid such problems, Li and Reeves (1999) have proposed the multiple criteria DEA model (Multicriteria Data Envelopment Analysis - MCDEA), in which each efficiency criterion is an independent objective function. On the other hand, Ghasemi; Ignatius and Emrouznejad (2014) proposed the Bi-Objective Weighted DEA model (BiO-MCDEA) which seeks to meet two objectives simultaneously.

Here, two optimizations were performed with the classic DEA-CCR model and the BiO-MCDEA CCR model, with $\varepsilon = 0$, and the results are in Table 1, which also shows the results and the OEE values calculated by the company itself. The OEE data on each press during each of the 10 observed months were obtained from the company records. Three interesting and useful aspects can be identified for performing the subsequent analysis: while the DEA-CCR model renders an amount of seven efficient DMUs, the BiO-MCDEA model only considers three efficient DMUs; the three DMUs that were considered efficient by the BiO-MCDEA model are also efficient through the DEA-CCR model; finally, by making an overall comparison, the values found by the BiO-MCDEA model are lower than those obtained by the DEA-CCR model, i.e. there is greater discrimination. In order to identify whether there was some correlation between the results of the DEA-CCR and the BiO-MCDEA models with the OEE results of the presses during the 10 studied months, Spearman's rank correlation coefficient test was used.

Table 1. Efficiency Results.

DMU	DEA Model (%)	CCR BIO-MCDEA CCR Model (%)	OEE (%)
1	86.46	65.82	39.40
2	100.00	78.31	46.30
3	100.00	93.04	48.90
4	88.94	84.83	40.70
5	100.00	100.00	52.50
6	74.03	69.00	47.20
7	85.68	84.10	50.50
8	81.96	79.11	44.00
9	83.12	74.13	47.10
10	74.02	64.53	40.50
11	100.00	100.00	49.30
12	100.00	72.75	39.00
13	100.00	100.00	44.20
14	100.00	55.71	44.30
15	82.82	76.08	54.00
16	52.70	44.78	37.70
17	43.03	32.14	41.30
18	85.02	66.11	47.90
19	78.44	43.12	43.00
20	60.26	40.52	35.30

Once Spearman's correlation coefficient values were calculated, it was found that: for the OEE & DEA-CCR combination, $r_s = 0.395$ ($p\text{-value} = 0.085$); for the OEE & BiO-MCDEA combination, $r_s = 0.605$ ($p\text{-value} = 0.005$). It could be observed that, at a statistical significance of 5%, there is no correlation between the OEE values with the values resulting from using DEA-CCR model; however, the results generated by the BiO-MCDEA model are positively and statistically correlated with the OEE values. Based on these results, a new Overall Machinery Effectiveness (OME) was additionally proposed to the company, which combines, by geometric mean, the BiO-MCDEA model efficiency values and the OEE values, as depicted in Table 2.

As the BiO-MCDEA model allows greater discrimination between the DMUs, it affects the OME and allows better prioritization of DMUs because identical values were not found, which could arouse doubts about choosing the DMU to be the investment focus to improve its efficiency. In Table 2, one can verify that Press #2 is the most critical because, among the first ten DMUs in the efficiency rankings, seven are associated to Press #1. Thereby, it should be the object of further studies and possible investments.

Moving forward with the results analysis, targets were set out for reducing input and increasing output to make inefficient DMU's efficient, based, respectively, on multiplying input values and dividing output values by the OME. It should be noted that these targets were only estimated for significant variables of each DMU. It should be noted that the

BiO-MCDEA model indicated that for all DMUs, variable v_2 was not relevant, that is, the decision maker does not have to worry about setting goals for this variable. For example, Table 3 sets out targets for reducing inputs and increasing outputs for the DMUs number 1, 2 and 3. Therefore, the estimation of targets by the OME becomes rather useful now, i.e. once targets are determined, one can manage the investment of resources more effectively, find the causes of inefficiencies to be dealt with and speed up the improvement process.

3. Final discussion

Based on the conducted analyses, it was possible to observe a contribution of the BiO-MCDEA model at calculating the efficiency of studied machines because, once combined with the OEE, which has been widely used in industries, has led to creation of a new and interesting indicator, the OME. With the OME, it was possible to draw up new rankings of DMUs efficiency that assists in the company's decision-making process regarding investments aimed at increased efficiency by identifying the most critical DMUs.

Table 2. Efficiency Ranking by the OME Indicator.

DMU	OME (BiO-MCDEA & OEE) (%)
5	72.46
11	70.21
3	67.45
13	66.48
7	65.17
15	64.10
2	60.21
9	59.09
8	59.00
4	58.76
6	57.07
18	56.27
12	53.27
10	51.12
1	50.92
14	49.68
19	43.06
16	41.09
20	37.82
17	36.43

Table 3. Examples of Targets for making DMUs efficient.

Target for	DMU		
	1	2	3
v_1	170.49	154.21	242.22
v_2	-	-	-
v_3	26.12	30.17	43.17
v_4	18.33	14.45	24.28
v_5	-	-	-
u_1	20,615.13	17,381.54	24,970.78

Acknowledgements: To FAPESP - 2015/12711-4; FAPESP- 2015/24560-0 and CNPq – 306214/2015-6.

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Not by Bread Alone: Estimating Future Scenarios for Asian Food Systems

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ABSTRACT

This paper summarizes the key results of a study of potato demand, supply and trade in India to 2030 according to three scenarios: Benign climate, optimistic and pessimistic. The results highlight the growing importance of potato in India with its massive population, favourable agronomic conditions, and low per capita consumption as key drivers of future outcomes. According to the estimated scenarios, demand could increase up to 30 million metric tonnes generating ample incentives for increases in production and improved productivity. However, the potential adverse effects of the advent of climate change on the potato sector could result in much more modest increases in output. While domestic potato marketing will continue to expand, foreign trade in potatoes remains small in absolute terms and as a percentage of national output. The findings call attention to opportunities for agribusiness initiatives in input markets as well as for both fresh and processed potato products for human consumption in the decades ahead.

INTRODUCTION

For millennia mankind has been concerned about future food supplies given the incidence of war, pests, and unfavorable weather [1]. In more recent times, the advent of climate change, has captured the attention of researchers, policymakers, and segments of the business sector alike. Consequently, modelling efforts have focused on quantifying different future scenarios that include different intensities of climate change in different time periods and locations to then propose mitigating programs as part of efforts to ensure adequate future food production and facilitate commercial initiatives in line with that objective.

In that context, considerable attention has been given to modelling future production of those food crops that have long formed the basis of the global diet — rice, wheat, maize [2]. While a cereal emphasis is understandable, we see opportunities for other basic food crops where the given commodity has shown noteworthy ability to integrate itself into local food systems on a massive scale. In light of these considerations, this paper analyzes food supply and demand in India in 2030 with a particular focus on potatoes.

IMPACT MODEL USED FOR THIS STUDY

The estimates of future scenarios for Indian food systems for this paper were generated utilizing the latest version of the International Model for Policy Analysis of Agricultural Commodities and Trade (IMPACT)[3]. IMPACT is a multi-period, agricultural partial equilibrium economic model, linked with a set of crop, climate and water models. As an integrated modeling framework it has been used extensively to examine global and commodity-specific food supply and demand at various geographical scales over different time periods, and also in analyses related to climate change impacts on agriculture. The model is built with FAOSTAT data and projects agricultural production, demand, trade and prices up to 2050 with estimates of future scenarios based on combinations of socioeconomic and climate indicators. For this study, however, the time horizon is 2009-11 to 2030 because: 1) it represents a year far enough into the future to justify projections about an uncertain outcome; 2) it allows for the effects of climate change to manifest themselves; and, 3) it provides a benchmark to build on in modelling efforts for years farther into the future.

SCENARIO ESTIMATES

Benign climate scenario

According to the Benign Climate (BC) scenario, total demand for potatoes in India will grow on average 3.11 %/yr during the period 2010-2030. While this annual average compound growth (ACGR) may appear high, in historical terms it represents a rather conservative outlook considering that during the decade 2001-2003 to 2011-2013 leading up to the study period, actual total potato demand in India grew at nearly 7 %/yr [4], or more than double the estimated future ACGR going forward from 2010 to 2030.

The BC scenario consequently estimates that total potato demand in India will nearly double to reach 68.9 million Mg by 2030. This increase can be attributed largely to the massive Indian population of 1.5 billion anticipated in 2030; the relatively modest levels of per capita consumption of potato prevailing in the country at the outset of the period: 22 kg/yr; and the relatively strong income elasticity of demand for potato—in particular in relation to the traditional staple foods in India such as rice or wheat.

Accordingly, per capita potato consumption in India is estimated to reach 31.4 kg/yr in 2030). In that regard, it is noteworthy that consumption had already reached 23.9 kg/yr by 2013 [4]. While the overall increase in per capita terms is on the order of 50% during the two decades, this latest tendency is but the most recent manifestation of the growing importance of potatoes in the diet in India that has emerged over the last half century [5]. Such a consumption pattern has been facilitated by factors ranging from the neutral taste and gastronomic versatility of the tuber, to the desire by consumers to diversify their eating habits away from simply greater consumption of rice and wheat as their incomes increase, to the massive expansion of cold storage facilities to over 25 million Mg that enables 80% of yearly consumption to take place after the annual harvest largely concentrated during February and March [6], to the persistence of vegetarian diets among Indian households. In effect, the BC scenario estimates that the historical trend more prevalent since 1991-93 will continue to persist such that potato consumption will continue to rise as that of the traditional cereal staples such as rice and wheat will stagnate if not decline, a pattern observed elsewhere in Asia over the last two decades [7].

The BC scenario also estimates that ACR for area harvested in potato to be 1.73% during 2010-2030, while that for yield will be 1.32%. The ACR for area—commonly interpreted as a proxy for demand—seems particularly conservative considering that over the last 50 years the moving ten-year ACR never was less than 1.8%, and that the clear tendency over the last 20 years has been for the ACR to remain above 3 % [4][5]. This long-term trend has been driven by the strong demand for potato for human consumption as previously indicated and shows little sign of an imminent noteworthy slowdown of the magnitude suggested by the estimated ACR. Alternatively, potato is predominantly an off-season crop, i.e. grown during the dry winter months when crop land may lie idle or cultivated in crops other than the traditional staples such as rice. Here the paradox associated with potato cultivation in South Asia comes into play; namely, although potato is a food crop, it is grown overwhelmingly for cash. Farm survey data have consistently shown that the bulk of potato production (> 60%) is sold [5][6]. In short, the profitability of potato cultivation is driving increases in area harvested and will continue to do so to 2030.

The BC estimated ACR for potato yields has an array of explanatory factors. Besides the profitability incentive previously mentioned, these would include: 1) the slowdown in the ACR for area thereby making it more feasible that growers consolidate their productivity capabilities over an area growing at a slower rate; 2) the continued take-up of existing improved technology and better crop management practices in terms of the quality of planting material, water-use management, and the more effective use of chemical fertilizers as evidenced the most recent rebound in yields and the ACRs for yields since 2008 [4]; and, 3) the continued development and diffusion of new production technology. In that regard, the

Indian national potato program and the associated extension service with a long-established track record of development and diffusion of new varieties, improved production practices (e.g., pest management). The BC scenario calculates that such activities will continue on into the future thereby facilitating achieving the estimated ACR for yields.

Given these ACRs for area and yields, the BC scenario estimates that total area harvested in potato in India will reach 2.6 million ha, yields will average 26.2 Mg ha⁻¹ resulting in a total output of 69 million Mg in 2030. These estimates imply that potato production in India will nearly double over the 20-year period primarily as a result of greater area—43% higher than in 2010, and to a lesser extent, greater productivity—up 31% from the outset of the period.

In terms of aggregate supply and demand, the BC scenario estimates a slight surplus of potatoes for the domestic market in 2030 translating into 181,000 Mg of exports on average across all climate models examined. Such modest (<.00% of total supply) foreign trade in potatoes, undertaken primarily with adjacent countries, e.g., Nepal follows the established pattern for such commerce over the previous decades [5]. More importantly, it underlines the strong domestic demand for potatoes throughout the year as consumers in India have become accustomed to regular inclusion of the tuber in their diets [6].

Optimistic scenario

For this study, the IMPACT model also includes estimates based on a more optimistic (OP) scenario in which total demand for potato in India grows at a faster rate: 3.54%/yr versus 3.1%/yr in the BC scenario. The associated demand estimates include 9% higher total demand, or 75 million MG, driven by a sharply higher ACR for food demand: 3.38%/yr versus 2.84%/yr, resulting in a 17% higher per capita consumption, 36.7 kg/yr versus 31.4 kg/yr than that estimated in the BC scenario.

This set of demand estimates partly reflects greater optimism about the prospects for future consumption of processed potato products due to, among other things, greater female participation in the workforce and the associated demand for easier to prepare meals and snacks including more potato consumption in processed form away from home (e.g., schools, colleges) or restaurants.

As a corollary, the OP scenario anticipates faster growth rates for area, yields and potato production as a response to the more rapid growth in demand. While the differences in estimated growth rates versus the BC scenario are modest, their cumulative impact results in 4.7 million Mg (7%) more production of potato in India by 2030 than that estimated in the BC scenario. Consequently, the OP scenario also estimates a slight increase in imports -- 1.3 million Mg, or <2% of total demand, to meet domestic potato requirements. However, as imports remain a meager share of aggregate demand, it would also appear feasible that that quantity will ultimately be covered by reduced waste, as higher prices resulting from stronger demand will most likely

squeeze more potatoes for direct human consumption from the commodity value chain.

Pessimistic scenario

Alternative estimates based on a more pessimistic set of assumptions regarding economic and population growth compounded by more adverse changes in climatic conditions cut the ACR for food demand to 2.36 %/yr versus 2.84 %/yr in the BC scenario. The lower ACR results in lower per capita consumption of potato: 27.1 kg/yr versus 31.4 kg/yr in the BC scenario as consumers cut back their in-take of the traditional staples such as rice and wheat by a lesser amount. Total demand for potato consequently reaches an estimated 63 million Mg, or some 5.8 million Mg (8%) less than the 68.85 Mg estimated according to the BC scenario.

On the supply side, the pessimistic scenario estimates a sharply lower ACR for productivity 0.80 %/yr versus 1.32 %/yr, or 40% less than in the BC scenario, as such factors as slightly higher temperatures undermine optimal tuberization and complicate pest management. These considerations also dampen the ACR for area harvested to 1.59 %/yr versus 1.73 %/yr, albeit to a much lesser extent than in the case of yields.

The overall impact of the pessimistic scenario is a total production of potato of 60.125 million Mg in 2030, or 24 million Mg more than in 2010. Notwithstanding, this total is nearly 9 million Mg less potato in 2030, or some 13%, than the total output estimated according to the BC scenario. The production shortfall in relation to total domestic demand generates a rise in imports estimated to reach 2.9 million Mg.

DISCUSSION

Estimates from this study indicate anywhere from 20 to 30 million Mg more of potatoes will be consumed as food in India by 2030 and that means, roughly speaking, a need for 16 to 24 million more Mg of cold storage capacity to keep the potatoes after harvest to say nothing of up-grades or replacement of aging current capacity as well. Related opportunities linked to increased potato consumption involve further development of potato processing and processed potato products. As the country becomes more urbanized and the bulk of consumption like the population itself moves from the countryside to towns and cities, potato processing as food, snacks, inputs to the convenience food industry seem destined to expand at an ever more rapid pace. Prospects for processed potato products will be given an added boost by rising incomes. Hence, India seems more likely to follow countries like China that have witnessed the emergence of potato processing for urban consumption centers as well as tourists with mass markets as well as complementary niches emerging as well [7].

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Historiography of the Concept of “Glocal”

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INTRODUCTION

This paper explores the historiography of the concept of “glocal.” As a combination of two words, i.e., global and local, glocal gained currency in the past two decades. It is difficult to trace the origin of the term glocalization in use, but scholars of sociology agree that it came from the Japanese word and idea of *dochakuka*. As Roland Robertson and Victor Roudometof discuss, glocalization has been associated with Japanese business strategies in the 1980s.¹ Since the term *dochakuka* has been used in many fields ranging from religion to technology, its meanings and effects vary according to each case and from time to time. This paper is a humble step in the direction of investigating the meanings and significance of *dochakuka* in conjunction with the concept of glocal, that is, how the Japanese concept of *dochakuka* in the 1970s evolved to “glocal” of 21st century.

DOCHAKUKA The Japanese word *dochakuka* is discussed in the Oxford Dictionary of New Words, published in 1991.² It is interesting to note that as a new word, *dochakuka* is not printed in the well-established Japanese dictionary *Kojien* in the 4th edition of 1991. It suggests the word *dochakuka* has not yet won currency at the time in Japan. The noun *dochaku* and the suffix *ka* are printed in separate pages of the Japanese dictionary, *Kojien* (1991). The term *dochaku* (土着) is a noun of soil or land, while *ka* (化) is a suffix of -zation. *Dochaku* is defined as “sono tochi ni umarete sumitsuiteirukoto,” which in Japanese means “one born and resides in the same land.”³ And *ka* (化) as a suffix has four meanings: change and alter a form and character, educate or guide with virtue, construct universe, and abbreviation of chemistry.⁴ The formal definition of *dochakuka* seemed to be under construction among many Japanese in the 1990s. Although the word *dochakuka* is not found in the 4th edition of dictionary *Kojien*, under the keyword search of National Diet Library’ database, the oldest document is a journal on USSR dated in 1935 in which the word *dochakuka* is used to describe the settlement of

nomads.⁵ Other titles under *dochakuka* in the 1950s and 1960s mostly concern foreign religion, or missionary activity in Japanese soil. In fact, *dochakuka* has been used in Christian missionary context rather than Buddhism. These suggest conflicting and difficult processes implied in *dochakuka* because it is about something totally unknown or unfamiliar ideas, but somehow grew roots in the adopted land.

GLOCAL Roudometof points out that the first use of the word glocal was at the Global Change Exhibition May 1990 in Germany. Whoever receives credit for the invention of the term, it is important to focus on individual cases of glocal. It is reasonable to consider the coinage of the word glocal in the 1990s when the word “global” took currency, gradually replacing “international” in the 1980s. If many scholars agree that the Japanese business practice of *dochakuka* unfolded in the 1980s, it is associated with the strong international presence of Japanese multinational corporations. Then, we should pay further attention to the early decades when Japanese companies took off to foreign lands to start businesses and open factories by hiring local people. For instance, Kikkoman opened its KFI factory in 1973 in Wisconsin in the U.S.A. Its managing strategy was to blend into the local community through Japanese lifetime employment while adopting American management. Japanese management scholars were aware of this trend. As far as the author knows, there are two books with the word *dochaku* in the title in the 1970s. Mikio Sumiya edited *Nihon Shokugyo Kunren Hattenshi – Senshin Gijutsu Dochakuka no Katei* Vol. I and II (1977), which discusses the history of how Japanese adopted and learned to operate progressive imported technology at factories. It is focused on an inbound argument, whereas Motofusa Murayama’s Keiei Kaigai Itenron – *Dochakugata Kindaika no Ronri* (1979) investigates how Japanese companies reinvent itself in the abroad while assimilating and internalizing others in their management. Here *dochaku* is comprehended in a sense that one cannot ignore the cultural dimensions of two parties: Japanese and their colleagues, clients, and community in foreign soil. It is interesting to note that Motofusa Murayama did not use *dochakuka* (土着化), but *dochakugata Kindaika* (土着型近代化), which indicates respecting local conditions while introducing modernization. In fact, this Japanese term

¹ Roland Robertson, “Globalisation” or “glocalisation?” *The Journal of International Communication*, vol.18, no.2 (2012): 191, and Victor Roudometof, “The Glocal and Global Studies” *Globalization*, vol.12, No.5 (2015): 775.

² Roudometof, “Glocal and Global Studies,” 775.

³ *Kojien* (4th ed.). (1991). Iwanami Shoten,

Translation by the author.

⁴ Ibid.

⁵ National Diet Library Digital Collections 『露紙抄訳第223号』日露協会1953年
http://dl.ndl.go.jp/info:ndljp/pid/1452847?__lang=en

well explains glocal with a holistic positive vision despite difficulty entailed in the process of filling a gap between different cultural and social conditions in the world. Later, Tatsuya Kobayashi published *Dochakuka heno Chosen* in 1983, which is about challenges in technology transfers. Hence there are concepts of glocal generated in the 1970s in the field of international management.

CONCLUSION

Robertson points out that globalizing seems oppositional to locality, but there are examples where local is included in global.⁶ For instance, even Hollywood movies has to be modified for global markets. Above all, we should not underestimate the cultural strength of local; recently, the Japanese film industry is booming and competing against foreign movies. Local is the place where things actually happen. It is also true that local contextualizes global social and cultural phenomena. Even though Robertson thinks glocalization is the refined version of globalization in respect of its space specificity, we are uncertain which words will attain more currency in the 21st century. What is certain is that since “glocal” appeared in the Oxford Dictionary of New Words in 1991, over two decades have passed, whereas the Japanese word *dochakuka* has been in use at least since 1935. The origin of the term *dochakuka* remain the same – change and alter things as if they were born and live in the same land. This is an unnatural and dynamic process because one remains a foreigner if one was born in another place unless the one lives in a cosmopolitan city. Local is as diverse as the numbers of persons; glocal could be best characterized by analyzing and interpreting each case on local soil and among individuals who interact each other.

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The Nature of Competition within the Motor-Vehicle Industry

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ABSTRACT

The purpose of this research is to assess the nature of competition within the motor-vehicle industry in the Johannesburg Metropole. Literature reveals that a common issue experienced in this industry is the level of difficulty automobile manufacturers have in offering a unique and/or differentiated product. A qualitative research approach. Data were collected from 10 motor-vehicle dealerships within the Johannesburg Metropole region. Data analysis was performed using content analysis. Findings reveal the majority the participants have mentioned that the nature of competition is vigorous due to the unstable economy of South Africa, specifically within the Johannesburg Metropole given that it is the 'business hub' of the country.

Keywords: Competition, motor-vehicle industry, customers, marketing, uniqueness.

Introduction

Competition in the industry may be influenced by political, social and environmental issues, reason being that the core product of this industry i.e. the motor-vehicle is utilised across the globe by millions of people on an everyday basis. The result of this is that companies within this industry are forced or compelled to meet the requirements of a large variety of customer needs while still trying to remain profitable. Bagu & Isac (2010) mention that the motor-vehicle industry is characterised by a low trade/sales ratio. With that in mind, it can be noted that companies within this industry will have some challenges in their efforts to make sustainable profits. This drives the level of competition very high, to such lengths that many companies now form part of a consortium, this makes it easier to survive within such a dynamic and rapidly changing industry. In order to clarify, a consortium in this manner is a group of motor-vehicle producers that fall under one banner, for example General Motors. Many companies have been bought over in the past, a

competitive tactic of acquiring another company has proved to be common in the industry. One of the most trusted and respected authors on competition and strategy is Michael E. Porter (2008), and he states that there are five competitive forces that organisations deal with namely; (a) Replacement products (b) Level of industry competitiveness (c) Threat of new rivals (d) Supplier ability to bargain (e) Buyers ability to bargain. This model will be made use of within this study in order to meet objectives and answer research questions.

Literature review

Competition in this industry is influenced by multiple variables, this research paper is an effort to investigate and see how all of these variables come into play, all in an effort to understand the nature of competition within the Motor-vehicle industry. Motor-vehicle manufacturers are among the most recognised brands in the world. Thanks to effective marketing and the fact that they satisfy a basic need. Brands such as VW, BMW, Mercedes, Toyota and many more are very well known throughout the globe (Kiler & Rubenstein. 2008). Kallstrom (2015) mentions that the industry is segmented and certain motor-vehicle companies seem to dominate these segments, the example given here is that of Japanese companies and the extent to which they dominate the subcompact and compact motor-vehicle segment. A common concept within the industry is that of "uniqueness" and the level to which it is created in the Motor-vehicle industry is of high importance. Guerzoni & Soellner (2013) stated that consumers have a need for uniqueness & the extent to which a certain product satisfies that need should be viewed as a characteristic of that particular product.

Problem statement & research objectives

A common concern experienced in this industry is the level of difficulty automobile manufacturers have in offering a unique and/or differentiated product. The reason behind this is that all motor vehicles serve the same need i.e. to efficiently commute from one point to another. A possible threat within this industry is that of replacement products and/or services such as public transport, motorcycles & any other form of transport. This adds to the difficulty of surviving in this industry. The primary objective of this study was to understand the nature of competition within the motor-vehicle industry with specific reference to differentiation and uniqueness.

Research question: What is the nature of competition within the motor-vehicle industry in the Johannesburg Metropole?

Research methodology

A qualitative study' is defined by Bayat & Fox (2007) as a research paradigm within the field of social sciences. The benefit of conducting this study qualitatively was that the information gained had allowed the researchers to formulate conclusions about competition within the

motor-vehicle industry in the Johannesburg Metropole region.

Population, sampling & data collection

The population which was targeted for the fulfilment of the study was 10 motor-vehicle dealerships within the Johannesburg Metropole region. Majority of these motor-vehicle dealerships are situated in the Southern region of the Johannesburg Metropole. This was a positive part of the study given that access to the selected population was easy and convenient. The selected population was further divided into the country of their origin. This was done in the following manner: BMW & VW – German Product, Toyota & Nissan –Japanese Product, Jeep & Ford –American Product, TATA & Mahindra –Indian Product, IA motors & GWM –Asian Product. This was done in the effort to find out how different brands operate within the local industry. Furthermore to gain a broader understanding of the Motor-Vehicle industry of the Johannesburg region. Participants were asked 15 questions regarding the subject matter.

Findings

All of the participants have mentioned that the nature of competition is vigorous due to the unstable economy of South Africa, specifically within the Johannesburg region given that it is the 'business hub' of the country. Furthermore, the lack of customer loyalty has been on the increase over the past year due more and more people gaining access to the internet. The internet has given consumers information to a very large information base, which in turn presents more alternatives and a multitude of brands. Majority of the participants have stated that the internet is one of the root causes of less customer loyalty. Another contributing factor to the lack in customer loyalty is that of pricing, given the instability of the economy, many consumers are now being more cautious with their spending, motor-vehicle companies are now in a 'price war' with one another. Pricing is viewed as an extremely important success or failure variable, as consumers are more likely not to care too much for about a certain brand as they do about the price of the available products. One of Toyota's success stories is that they are able to offer products which cater to more than one niche markets, for example; the Toyota product offering ranges from low-end (Etios, Yaris, Prius) to the middle classed (Corolla, Camry, Fortuner etc.) and the top of the range high-end products (land cruiser, VX etc.) . This allows Toyota to spread its risk over many markets. Now to compare to a competitor such as Nissan, it is also apparent that Nissan has wide product range which also caters to multiple consumers at different levels, this alone serves as proof that competition within this industry is challenging. The results from the field study has allowed the researchers to understand that the industry is heavily over traded, it was stated by a representative of the VW brand that 'There are too many players fighting for a piece of the same pie' which in essence is another indication of the difficulty currently being experienced in the industry. The common competitive strategy which was identified through the field study seems to be centred or focused on aggressive marketing tactics. Marketing and/or advertising is viewed as a key focus area within this industry. Reason

being that communicating new and existing products to consumers in and around the Johannesburg Metropole region is one of the methods of attracting customers. A direct link between marketing and growth has been identified by these motor-vehicle companies. It is also common practice for these motor-vehicle dealers to make use of multiple social media platforms in order to communicate to customers. One of the underlying reasons, which is mutual to majority of the selected respondents, is that social media such as Facebook, LinkedIn, YouTube and Instagram grants them access to a very large database of consumers.

Regarding replacement products and/or alternatives, these have had little to no effect on the motor-vehicle industry of the Johannesburg Metropole region. Multiple reasons have been provided by the participants but the most common among them is that public transport is not very reliable, even though the masses throughout the region utilise them, it is only due to the fact that many cannot afford to purchase a personal mode of transport (i.e. a motor-vehicle), the example provided by one of the participants is one of simple logic that an individual would not utilise public transport if he/she had the capacity to own a personal mode of transport or if he/she did actually own personal mode of transport. Again, the majority of the participants stated that this provides an opportunity to motor-vehicle dealers as well as producers as the potential to gain more consumers is apparent. Furthermore, 7 of the selected participants had stated that one of their goals as a motor-vehicle dealership is to encourage more people to purchase their own personal mode of transport. It is important to note that the most common issue amongst motor-vehicle dealers is that of the unstable economy. They have stated that it has a direct impact on sales and is a deterrence to growth. 80% of the participants had mentioned that many branded dealerships will soon be closing down as they cannot survive on the extremely low sales, specifically those selling higher-end products. From a local stand point, 70% of the participants had stated that environmentally friendly vehicles are not as successful in this country as they were expected to be. It's not a very popular theme within the local motor-vehicle industry. As a form of proof, 3 participants had mentioned that the sales of these vehicles have been gradually decreasing. The majority seem to be in agreement as a common trend among them is that this 'green era' has not had any significant impact on sales. Only 50% of the respondents had answered regarding sustainable practices (question 7). Each having stated the high importance it holds for any company operating within the industry, even though the participants have no significant influence over the extent to which their parent company will peruse sustainable practices. The remainder of the participants gave no comment on this topic. Majority of the participants have mentioned that the popularity and strength of the brand is the main differentiating factor. It comes down to the customer preference and spending capacity. This is a strong competitive advantage for the more exclusive brands such as BMW or Jeep, here the brand name and 'status quo' assigned to it makes the difference. On the other hand, companies such as Toyota, Nissan, Kia, GWM and Ford are popular for their affordability and value for money benefits. This is one the main driving factors behind the industry, the brand must be popular for something. In academic terms, any motor-vehicle brand

must hold at least one differentiating factor, if not then the chances of success is low.

Conclusions

All participants view the future of the industry as uncertain, due to multiple factors which they have identified. What can be derived is that there are a number of external factors such as the economy, imports and communication technology which has a direct influence over the industry. The nature of competition is seen as very challenging and motor-vehicle dealers within the Johannesburg Metropole region seem to employ a multiplex of strategies in order to remain competitive and/or maintain a certain amount of market share.

Another factor to take note of is the sheer amount of motor-vehicle dealers within the Johannesburg Metropole region. This reiterates the statement mentioned early of the industry being massively over-traded. Each dealership is an independent entity, meaning that competition that can take place between same-brand dealerships. This can be identified as a more organisational strategy on behalf of the main company such as BMW, VW, Toyota, Nissan etc. Inevitably, this allows for stronger overall competitive force.

Recommendations

The motor-vehicle industry is currently facing with a lot of uncertainty, all participants seem to have this mutual perception. From the results, it has been established that the industry is declining in 2015, the general hope amongst motor-vehicle dealers within the Johannesburg Metropole region is for improvement. Many have warned that some may not be able to survive much longer given the current circumstances, specifically the higher-end vehicle dealers. Furthermore, motor-vehicle dealers should look towards sustaining themselves within the Johannesburg Metropole region given the intense competition and unstable economic conditions. Industry competitors in the motor-vehicle industry, should search for new ways or ideas to reinvent themselves so that they offer a product that is efficient, yet affordable so that it may appeal to all target markets in a manner that is not only beneficial to the company but also creates value in the consumers life.

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The Collaboration with Infrastructure Business and Local Culture

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I ABSTRACT

Japanese economy has developed along with the progression of railway system started the service between Shinbashi and Yokohama 150 years ago.

Whilst Europeans and Americans have used horse carriages and automobiles as the major transportation, Japanese has used fast and mass railways transportation system taking advantage of its geographical characteristic of cities connected in rows from north to south for holidays, family visits and business trips, and has enjoyed Ekiben or boxed meal composed of local flavors, and the scenery. Ekiben is considered as the product of co-creation of railways system and local specialties in other word, culture.

Railway companies like East Japan Railway Co., (EJR) and regional governments face problems for decreasing railway passengers, mid-long term population decline and economy stagnation and hope to activate regional economy by increasing the number of train passengers and bringing in visitors.

In this paper, EJR strategies and activities focusing on examples of JR “Entertainment Train” are introduced.

II CHALLENGES

The challenges the railways companies and regional governments face may be summarized as follows;

- (1) Presumption of a drop in the number of railway passengers in medium to long term owing to Japan’s population decline
- (2) Desertion risk of regional areas due decreasing population and aging residents
- (3) Stagnation and decline of Japanese economy, GDP and per capita GDP along with weakening economy in regional area

III STRATEGIES

East Japan Railway Co. (EJR) focuses on the following elements to tackle the challenges.

- (1) Producing railway tourism flow from Tokyo and overseas to regional areas by leveraging railways especially including super express Shinkansen or recently introduced Hokuriku Shinkansen, and introducing and promoting attractive tourism assets including local scenery, cuisine, sake, specialties and onsen or hot springs
- (2) Generating the virtuous circle of increasing consumption of lodging, food and beverages and products and services, increasing attractiveness of tourism assets by revitalization of local companies and local economies, and growing railways exchange population.

IV “ENTERTAINMENT TRAIN” AS A TRIGGER

One of the successful EJR strategies is “Entertainment Train.”

Collaboration with local culture adds new value to railway traveling. In other words, “Entertainment Train” becomes the destination instrument for leisure rather than mere means of transportation.

Introduced below are two examples of “Entertainment Train”, “Koshino Shu Kura (Koshi sake brewery)” of Shinetsu & Iiyama line and “Toreiyu Tsubasa (Train+Soleil+yu or hot spring)” of Yamagata Shinkansen.

(1) “Koshino Shu Kura” (Apr 2014 -)

With the launch of Hokuriku Shinkansen services from Tokyo to Kanazawa in March 2015, “Koshino Shu Kura” as a part of “Entertainment Train” series was deployed to cover wider area excursion route by connecting Jyoetsu Shinkansen and Hokuriku Shinkansen lines.

<Concept>

To enjoy drinking various labels of Nihonsyu or sake brewed in Niigata Area, the Kingdom of Nihonsyu. Drinking and Riding train travelling.

Photo1. Exterior of “Koshino Shu Kura”



<Special Features of the Car>

Relaxing booth, comfortable two-seater, observation two-seaters, bar counter and lounge area

<Scenery from the Window>

Sea of Japan, Mt. Myoko, Shinano River, Mt. Hakkai and rice terrace.

<Events>

Sake tasting by brewers, sake tasting counter, stop at the station closest to the ocean (Sea of Japan) and live local band performance.

Photo2. Omigawa St (the closest station to the ocean)



<Specialty Recommendation>

Genge fish tempura, Kanzuri spice, Kashiwazaki soup rice, Yukimuro Premium Coffee (coffee aged in natural ice box), “Koshino Shu Kura” sake cup, Beer cup made in Tsubame and Niigata local sake tasting set.

Photo3. Sake tasting set(3kinds of Sake & Specialties)



(2) “Toreiyu Tsubasa,” Yamagata Shinkansen (July 2014 -)

Collaborating with Yamagata Destination Campaign 2015, “Toreiyu Tsubasa” as one of the highlights of Entertainment Train” series has been planned and launched with the following characteristics.

<Concept>

The moment passengers step onto the Yamagata Shinkansen, they will experience the world of hot springs village of Yamagata Area, the Kingdom of hot-springs, and enjoy new journey style.

Photo4. Exterior of “Toreiyu Tsubasa”



<Special Features of the Car>

Relaxing “Ashiyu” or footbath while enjoying the scenery from car window, Prefecture flower Benibana or safflower colour bar counter, Comfortable Tatami mat lounge area en suite to foot bath, and reserved “Ozasiki” or tatami seats

Photo5. Relaxing “Ashiyu” in train car



<Scenery from the Window>

Itaya Pass for autumnal red leaves, winter snow scenery, Zao Mountains, etc.

<Events>

Yumamori attendants, Yamagata local sake in the lounge, Kendama free trial

<Specialty Recommendation>

Zao wine, Yamagata local sake, Mustard pickled mini eggplants, Smoked soft boiled egg “Smocchi”, original Ekiben “Oshoshinacchi”, Yamagata dialect meaning thank you produced by local cuisine producer “Kochan” and made with plenty of local ingredients.

V ACHIEVEMENTS

(1) In case of “Koshino Shu Kura”

In 2015, total number of passengers has reached 13,200 with high car-loads of 87.3% for 243 trains with the capacity of 70 passengers each.

As the number of passengers in 2016 has remained high to January when the data is available until, it can be said that the project is successful and is widely accepted by wider audiences.

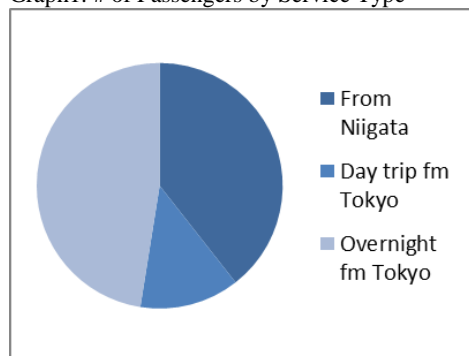
In terms of the revenue, it is ranked the second highest among 7 of the “Entertainment Train” series.

Table 1. Koshino Shu Kura (Jyoetsumyoko~Tokamachi)		
Fiscal year	2015	2016
Passengers	13,200	12,600
Car-loads(%)	77.4	79.7
Revenue(\$)	796,000	-
Remark		Apr~Jan

※EJR data, USD1=JPY110

Below record on types of trips EJR View Travel service customer has chosen shows the numbers of travelers originating the trip from Niigata area, day trip travelers from Tokyo and overnight travelers from Tokyo. It can be analyzed that the project has activated the local economy with accommodation involved spending by overnight travelers.

Graph1. # of Passengers by Service Type



Niigata revitalizes the prefecture by hosting sake tasting event named “Sake no Jin” and supports promoting local sake. The event has contributed in increasing production of sake rice, the main ingredient of sake as well.

It can be stated that “Koshino Shu Kura” has played the important part in activating local economy.

(2) In case of “Toreiyu Tsubasa”

In 2015, total number of passengers has reached 15,600 with high car-loads of 48.2% for 227 trains with the capacity of 143 passengers each.

As the number of passengers in 2016 has remained high to January when the data is available until, it can be said that the project is successful and is widely accepted by wider audiences.

In terms of the revenue, it is ranked the highest among 7 of the “Entertainment Train” series.

Table2. Toreiyu Tsubasa (Fukushima~Shinjyo)		
Fiscal year	2015	2016
Passengers	15,600	11,500
Car-loads(%)	48.2	43.0
Revenue(\$)	904,000	-
Remark		Apr~Jan

※EJR data, USD1=JPY110

The success of “Toreiyu Tsubasa” has increased marketing channel from exclusive EJR View travel services to other private travel agencies such as Club Tourism and Hankyu Travel Agency from February 2017 and has launched co-produced travel packages incorporating this special train service that originates from Ueno station accessible to wider audiences.

Before the services from Ueno station, passengers have had to travel from Ueno to Fukushima by regular Shinkansen and change to this special train. Starting the services from Ueno station has enabled the passengers to enjoy “Toreiyu Tsubasa” from the start of the trip and added convenience. It is expected to become more popular and further passenger loads.

VI CONCLUSION

EJR’s strategy to launch Entertainment Train has solved problem of decreasing daily use train passengers by attracting new types of passengers who use the service for pleasure. It has also stopped local economic stagnation by utilizing existing local assets, adding value and executing appropriate marketing for the services.

“Toreiyu Tsubasa” has generated new demands by the synergic effect of “Yamagata Destination Campaign” of which Shinkansen to Yamagata, Kingdom of Hot Springs, incorporates the innovative service of Ashiyu.

“Koshino Shu Kura ” succeeds in producing new and attractive value by matching local sake of Niigata, Kingdom of Sake, and the train services, Joetsu Shinkansen and Hokuriku Shinkansen launched operation to Kanazawa in March 2015. Covering wider area excursion route has also activated the train services and local economy.

It is expected that Sake may be utilized as the strategic tool to attract many inbound tourists from every part of the world expected to visit Japan for Olympic and Paralympic Games Tokyo 2020.

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Conceptual development of Marketing: An Ex-ante and Ex-post perspective

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ABSTRACT

Marketing is a relatively new discipline in the academic business field, which itself is relatively new compared to other science and humanities fields. Starting off with a product-orientation, marketing has since evolved to include a deeper and broader external analysis of consumer and organizational buying behavior; competition; changes in the environment as well as internal assessments of an organisation's strengths and weaknesses. While the fundamental concepts still apply, rapid and dynamic changes in the environment including demographic, economic, natural, technological, political and cultural changes, have led to new marketing frameworks and approaches.

INTRODUCTION

Right from the beginning of mankind where there must have been some form of exchange of goods/services and buying and selling transactions, marketing activities would have existed. These though were not captured in the academic literature until the latter half of the last century which is not too surprising given that business and management academic disciplines are relatively new too, compared to other fields of study.

On an ex-ante analysis basis, this has come a long way since the earlier days of the production, product and selling orientations.

Marketing 1.0

Under the production orientation, the widely held view is that the market values goods/services that are available and affordable. Hence the focus then is on efficiency – with mass production and highly efficient distribution to lower costs as well as looking into other product aspects such as quality, performance, innovative features etc. As such, managers in these organizations focused on making superior products and improving them over time, assuming that buyers could appreciate quality and performance.

This “overconfidence” in a product-centric strategy can lead to *marketing myopia* (Levitt, 1960).
Railroad

management thought that travelers wanted trains rather than transportation and overlooked the growing competition from airlines, buses, trucks, and automobiles. The risk though of over concentration on continuous product improvements may lead to missing out the needs of customers.

The selling orientation is yet another popular orientation before the marketing concept. Under such an orientation, the belief is that customers will not buy unless, there is a significant selling and promotion efforts – the “push” strategy. Again, a flaw of such an orientation is that the focus is on sales transactions rather than on building long-term profitable relationships with customers. Successful selling may lead to immediate success but there is no certainty that such successes can be sustainable.

Marketing 2.0

“Nobody ever got fired for buying from IBM” was a popular “business myth” among computer salespeople in the 1970s and 1980s. Although this company entered the computer industry later than other big players, it was soon to achieve dominance in the fast-growing market. What was IBM's success formula? Some business people, including executives from IBM's competitors, went on to falsely assume that the answer was a superior product. IBM's success secret was in offering a total solution, rather than just standalone products to its clients. It offered methods of planning new business applications, training development staff, and managing data. It pitched in when a system wasn't working, diagnosing the problem and getting it back on track. It took care of planning which new machines were needed, which had to be upgraded, and how to integrate the new technology. It also sent clients off for periodic education to deepen their knowledge and broaden their managerial skills (Treacy & Wiersema, 1995).

The strategic question that drives the customer-centric perspective is not “what else can we make?” but “what else can we do for our customers?” Customers and the market, not the factory or the product, stand at the core of the business. This centre of gravity demands a rethink of some long-standing pillars of strategy: First, the sources and locus of competitive advantage now lie outside the firm. Second, the way the firm competes changes over time. It's no longer about having the better

product: its focus is on the needs of customers and its position relative to their purchase criteria. Third, the pace and evolution of markets are driven by customers' shifting purchase criteria rather than by improvements in products or technology (Dawar, 2013).

Rather than strengthening upstream marketing activities, Customer-centric companies choose to go downstream. The focus is on the following four core activities - Get; Keep; Grow and Win-Back back lost customers

Marketing 3.0

As economies grow and societies develop even further, questions are raised as to whether the pure marketing orientation has ignored the potential gap between customer short-run wants and their long-term welfare. Hence a new concept evolved - the societal marketing concept which strives to deliver value to customers in a way that improves both the customer's and society's well-being. This calls for responsible and sustainable marketing (Kotler, Kartajaya and Hooi, 2017).

Such thinking sheds light on other aspects of businesses, including entrepreneurship.

As what Nobel Laureate Muhammad Yunus said, *"Business is a very beautiful mechanism to solve problems, but we never use it for that purpose. We only use it to make money. It satisfies our selfish interest but not our collective interest."*

Hence as ironical as it may sound, we advocate that Purpose and Principles more than Profits power deeper Passion and greater Perseverance. Especially in a much more enlightened world, all marketers need to take cognizance of the need not only to capture a customer's mind, market and heart share but to do it in the true human spirit of caring not just for the consumer's needs, wants, aspirations and anxieties but also the larger societal and human spirit interests.

At the same time while such individual social consciousness grow, other aspects of the business landscape is changing too such as in the economic, political-legal, social-cultural, technological and market and environmental landscapes. Marketing should hence not just be customer-centric but human-centric, in order to stay relevant and to take cognizance of a much connected world. Hence marketing has evolved from Marketing 1.0, 2.0 to 3.0. Champions of these include Bill Gates, founder of Microsoft and the poster child of the corporate philanthropy movement and Muhammad Yunus who introduced a concept called "social business" where a business is an investment that is aimed at fulfilling some social objectives

In the context of the business world, a human-centric perspective emerges as the concept that offers a more systematic integration of social and business objectives. It is a new perspective which aims to deliver not only functional and emotional value, but also a "spiritual" value. Table A summarizes a comprehensive comparison of Marketing 1.0, 2.0, and 3.0.

	Marketing 1.0 Product-centric Marketing	Marketing 2.0 Customer-centric Marketing	Marketing 3.0 Human-centric Marketing
Objective	Sell products	Satisfy and retain the consumers	Make the world a better place
Enabling forces	Industrial revolution	Information technology	New Wave Technology
How companies see the market	Mass buyers with physical needs	Smarter consumers with mind and heart	Whole human beings with mind, heart and spirit
Key marketing concept	Product development	Differentiation	Values
Company marketing guidelines	Product specification	Corporate and product positioning	Corporate mission, vision and values
Value propositions	Functional	Functional and emotional	Functional, emotional and

spiritual			
Interactions with consumers	One-to-many transaction	One-to-one relationship	Many-to-many collaboration
Source: Kotler, Kartajaya & Setiawan (2017).			
<u>Marketing 4.0</u>			
To recognize the rapidly and dynamically changing technological forces which resulted in ever more new marketing approaches and methods, Kotler, Kartajaya and Setiawan (2017) has recently published a book, Marketing 4.0 to capture as much of these, such as from the angle of a customer's complete journey.		having capabilities to anticipate and take care of the functional, emotion and spiritual needs of human beings or even take over total control of homo sapiens? It will be hard to believe nor more difficult to accept such a scenario but who knows that one day, this may become reality or near-reality?	
Technology continues to play an important role today but at the same time customers are becoming more human. Machine-to-machine (M2M) marketing tools are becoming more powerful if a company can utilize them to deliver human-to-human (H2H) interactions. In this transition and adaptation period in the digital economy, a new marketing approach is required to guide marketers in anticipating and leveraging on the disruptive technologies while maintaining the human-centric approach of Marketing 3.0. This is termed Marketing 4.0.		<u>Conclusion</u>	
The differences between Marketing 3.0 and Marketing 4.0 is looking into how and what new marketing philosophy and practices can be adopted and their implications.		The rapid and dynamic changes in the world, especially in a digital context where people are better and more deeply connected, exert a profound impact on companies and their competitors and customers. From an ex-ante and ex-post perspective, marketing has significantly evolved from the product-orientation to the selling-orientation to the marketing-orientation to the marketing orientation and to the human-centric marketing orientation in the "Now" economy. In order not just to survive but to be sustainably successful, all organizations need to move from the exclusive to the inclusive; the vertical to the horizontal; and from the individual to the social. The possibility may exist that one day human marketing activities may not be needed, when machines may take over all the roles and functions.	
According to Kotler, Kartajaya and Setiawan (2017), Marketing 4.0 is a natural outgrowth of Marketing 3.0 with the major premise that marketing should adapt to the changing nature of the customer path from awareness to advocacy in the new digital economy. In essence, Marketing 4.0 describes a deepening and a broadening of human-centric marketing to cover various aspects of the customer's journey. These relate to: Human-centric marketing for brand attractions; Content marketing for brand-curiosity; Omni-channel marketing for brand improvement and Engagement marketing for brand affinity.		REFERENCES	
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Given dynamic advances in technology in areas such as the mobile internet, automation of knowledge work, internet of things, cloud, advanced robotics etc, will		[2] Philip Kotler, Hermawan Kartajaya and Hooi Den Huan, Marketing for Competitiveness, World Scientific, 2017	
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The Rise of Populism in the West and its Impact on Free Trade

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ABSTRACT

Many Western populist political leaders have risen to prominence in their countries on an anti-globalisation, anti-trade and anti-foreign platform. Free trade is no longer in favour. Instead, populist agendas of protectionism and nationalist, inward-looking policies are the order of the day. Opposition to trade and trade agreements has increased. In this paper the following issues are examined: populism, free trade, opposition to trade, the benefits of free trade and the costs of protectionism.

INTRODUCTION

Globalisation has become increasingly unfashionable and unpopular in Western countries [1]. Instead, a wave of populism is sweeping across many Western societies [2]. Some examples include Britain's withdrawal from the European Union, Donald Trump's takeover of the Republican Party and subsequent victory in the 2016 US presidential election, nationalist and authoritarian regimes that have come to power in Eastern European countries such as Hungary and Poland and populist right-wing political parties in France, Germany and the Netherlands gaining prominence and recognition [3].

The elements of populism are authoritarianism, nativism, anti-establishment and anti-immigrant sentiments [4], [2]. Populist Western leaders who have gained public attention include Donald Trump (US), Marine Le Pen (France), Norbert Hofer (Austria), Nigel Farage (UK) and Geert Wilders (Netherlands) [2]. Populist movements emphasise a "Them" versus "Us" scenario which is divisive and hostile, with "Them" being foreigners and immigrants who take away "Our" job opportunities and prosperity and use "Our" public services [2].

Furthermore, populism evokes strong suspicion and distrust towards globalisation, national governments, multilateral institutions, educated elites, the press, politicians, big business and the rich [2]. Populist leaders also claim that the establishment is unethical because it focuses on self-enrichment or is more focused on the well-being of minorities or immigrants instead of a country's legal residents [3]. Populism has thrived in certain Western countries due to mounting economic uncertainty as well as "social deprivation" that has been felt by people who feel left behind by globalisation [2]. Individuals who are prone to be drawn to support populist movements are those whose lives are affected by low wages, prolonged unemployment, blue-collar workers, those relying

on social services such as government housing and single parent households [2].

Free trade

Free trade is defined as trade that takes place without any restrictions or government intervention [6]. In the 19th century, the English historian Thomas Babington Macaulay lamented that "free trade, one of the greatest blessings which a government can confer on a people, is in almost every country unpopular" [7]. The Global Competitiveness Report 2016-2017 notes that many nations in the global economy have been overwhelmed by rising income and wealth inequality and lacklustre output growth [5]. This has translated into a backlash against globalisation which is seen as benefitting the elites [1], [5] and has resulted in requests for protectionism and more nationalist policies [5].

The World Trade Report 2013 developed by the World Trade Organization acknowledges that support for free trade has waned due to concerns about job security, uneven income distribution and a lack of social justice [8]. According to public surveys carried out among American and European publics, they are weary and cautious of the assertion that trade and trade agreements are beneficial [9]. This is particularly worrying in view of the fact that at least half of all global trade takes place within free trade agreements [9], [10].

Adam Smith, championed the free market ideology in the 18th century and suggested that if countries wanted to create economic development, they needed to participate in free trade with other nations [11]. Smith also developed a trade theory called the 'theory of absolute advantage' which emphasises that in an environment of free trade, a country gains from international trade if it specialises in those activities where it has an absolute advantage [6]. David Ricardo, an influential economist, developed the 'theory of comparative advantage'. He explained that in a world of free, unrestricted trade, even if a country has relative and not absolute advantage when producing different goods in comparison to another country, it is still beneficial for both countries to engage in international trade [6].

Opposition to trade

Many Western countries are moving towards protectionism [5], yet developing countries have been urged to embrace trade liberalisation and open economies. For instance, there are in excess of 380 free trade agreements in existence and the United

States, the main champion of neoliberalism and free market capitalism is involved in about 10 of them [9],[1]. For a large part of his campaign to be the Republican nominee in the 2016 American general election, Trump questioned and lashed out against free trade deals [12].

Trade agreements that have come under fire from Trump include the North American Free Trade Agreement (NAFTA), the Transatlantic Trade and Investment Partnership Agreement (TTIP) and the Trans Pacific Partnership (TPP) [12]. Furthermore, Trump congratulated the people of the United Kingdom when they voted to exit the European Union [12].

The TPP was a trade agreement that was being finalised between 12 nations located in Asia, the Pacific and the United States [13]. However, on 23 January 2017 the United States announced that it had withdrawn participation in the TPP agreement [14]. This agreement was designed to be more than just a bilateral trade agreement; it was supposed to be a free trade area where there is free movement of labour, capital, goods and information [15].

Followers of populism reject free trade in favour of “fair trade”, yet the meaning of “fair trade” is not clearly defined [16]. In the United States, for example, trade is associated with the loss of jobs and being the cause of trade deficits and is seen as being “caused by foreigners who do not play fair” [16]. The strongly argued debates about trade are often uneven, inconsistent and pro-nationalist. For instance, heated debates about trade are focused on some countries while other countries are not mentioned at all. Anti-trade sentiments are coupled with nationalist attitudes and are aimed at countries such as Mexico, China, India, Japan and Vietnam [16]. This is despite the fact that the US has trade deficits with both the European Union and Germany (the US trade deficit with Germany is bigger in comparison to that of Mexico). Yet, these countries are rarely lambasted [16].

Another example of the inconsistencies in the trade debate is that the United States has expressed concern that “billions of dollars” are lost to India via trade. Yet, it had bigger trade deficits with Italy and Ireland than it did with India and no mention of this has been made [16].

The World Trade Organization’s Doha trade negotiations in 2001 focused on trade liberalisation, [17] carrying out trade agreements as well as overcoming challenges experienced by developing countries that limit them from benefiting from trade in agriculture, clothing, fish and textiles [18].

The Doha Round was a failure. Developed countries are now showing a partiality towards concluding bilateral instead of multilateral trade agreements with developing countries [13]. Multilateral trade agreements are more inclusive and encompassing, and the preference for bilateral trade agreements could endanger and undermine international trade [13]. These bilateral trade agreements could

adversely affect developing countries as they may be persuaded by developed countries to accept trade terms which are less favourable to them and positively skewed in favour of developed countries.

Benefits of free trade

The World Trade Report 2013 mounts a persuasive argument in support of free trade. It states that the role of trade is threefold: it is a major driver in stimulating economic progress, it contributes to reducing poverty and it increases a country’s wealth [8]. For example, NAFTA, based on free trade between the United States, Canada and Mexico, has created a strong foundation for economic growth and progress [18].

International trade has increased in developing countries and a number of these countries have overtaken developed countries by achieving higher GDP growth rates [9]. For the last two decades developing countries’ share of global trade has grown by more than 100% [13]. International trade can also benefit the United States [11]. In a similar vein, Emott [19] claims that the TTIP is momentous because it includes one third of global trade and could strategically position the United States and the European Union in a more powerful position in relation to China.

Anti-trade sentiment in the United States is linked to the argument that due to excessive imports and insufficient exports, the country has a trade deficit and a trade deficit creates unemployment [16]. In contrast, Paul Krugman, the distinguished economics Nobel Prize winner, points out that: “International trade is not about competition, it is about mutually beneficial exchange...imports, not exports are the purpose of trade” [20]. The counter-argument by proponents of trade is that the assumption that unemployment is caused when imports in a country exceed its exports is incorrect because there is no correlation between unemployment and an increasing trade deficit [16].

The theories of Smith and Ricardo emphasise why it is crucial for countries to undertake international trade with each other [21]. Many consumers believe that they should only buy products made in their country in order to save jobs. Smith and Ricardo’s view differs here as they state that a nation’s economy can still be prosperous even though their consumers purchase products made in other countries that could be made at home [21].

Trade benefits a nation in three key areas: firstly, countries increase manufacturing in order to export products overseas and undertake mass production which leads to achieving economies of scale and this promotes efficiency [9]. Secondly, due to strong international competition, domestic producers do not have monopoly power and therefore pursue efficiency objectives [9]. Thirdly, consumers can choose from a wide variety of products to buy and this promotes lower prices as producers compete with each other; this is beneficial to consumers who have a low income [9].

It is important to note that although trade is beneficial, its advantages increase the more a country is 'open' and the greater its economic freedom [9]. Therefore, it is interesting to note that according to the 2016 Economic Freedom Index developed by the Heritage Foundation [22], Hong Kong is first in the world in global rankings on economic freedom and the United States is eleventh [22]. Free trade is regarded as being positive for all countries, including consumers from Western countries and people from developing countries, as it contributes to poverty reduction [1].

Countries with open trade regimes are often better off than those that have a strong inward-looking, protectionist stance against trade [9]. The World Bank conducted a study that analysed trade policy and economic growth in 41 developing countries over a 20-year period (late 1960 to late 1980). It found that developing countries that had a more open trade policy had higher GDP growth in comparison to that of countries that had restricted trade policies [9].

Furthermore, Krugman cautions that a trade policy aimed at promoting domestic firms in a global market is a "beggar-thy-neighbour policy" that promotes the national interests of one country at the cost of those of other nations [21]. Such a trade policy leads to retaliation from other countries and creates a trade war which results in countries' trade being even more worse off than before [21].

Costs of protectionism

Protectionism is defined as government intervention in a country's domestic industries in order to shield them from imports and to actively encourage exports [6]. The different forms of protectionism include tariffs, quotas, subsidies and regulatory requirements intended to make imports more difficult [9]. When trade deficits increase in a country, proponents of protectionism voice concern over this and blame free trade and 'poor trade deals' for this [9].

One of the strongest arguments in favour of protectionism is that a government needs to protect its citizens' jobs and its industries from unfair external competition [21]. Economists counter-argue that it is not the quantity of jobs but the quality of jobs that are generated by trade [11].

Advocates of protectionism claim that businesses in developed economies are disadvantaged, as they cannot compete with businesses from developing countries because the latter have the advantage of low-wage labour costs [10]. Therefore, supporters

of protectionism call for trade barriers to restrict the import of goods from low-wage countries [10].

In March 2002, US President George W. Bush restricted imports of foreign steel in the country in order to protect US steel producers from foreign competition. The result of the steel tariffs was that US carmakers became less competitive in relation to the global car market and US consumers had to pay higher prices for cars [21].

Another controversial trade policy aimed at protecting European farmers' jobs is the European Union subsidy programme called the Common Agricultural Policy (CAP). Under CAP, European Union farmers receive huge subsidies from the European Union [21]. The European Union has imposed trade restrictions on agricultural imports in order to protect and promote its farmers. Furthermore, African farmers have been severely disadvantaged by CAP subsidies given to European farmers and have complained to the World Trade Organization about this on numerous occasions.

Other arguments for protectionism include national defence, protection of infant industries [9], and protection of a national economy [10]. Many countries place trade restrictions on strategic industries and products which are regarded as crucial for national security [10]. Governments in some countries protect a new industry from foreign competition through trade barriers. However, if infant industries continue to receive government protection from foreign competition, in the long run they become less competitive and effective [9].

CONCLUSION

Countries should not rely only on trade and trade policy to address their economic woes and to increase their economic growth [5]. In order to create economic growth that includes everyone, nations need to develop extensive public policy frameworks that are responsive to their economic and social challenges and those posed by globalisation [5]. There is an urgent need for reforms to be made at the World Trade Organization in order to promote a more balanced world trading system, where all countries are treated fairly, equally and can benefit from trade [18].

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A complete list of references is available upon request.

Relationship between logistics and trade: A South African ecological study

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ABSTRACT

The liberalisation of global trade has resulted in the reduction in the imposition of traditional trade barriers in the form of tariff barriers. With the decline in traditional barriers to trade, shifts in the sources of competitive advantage are being experienced. Today one of the key sources of competitive advantage in international markets is logistics. This study sets out to analyse the trend associations between South Africa's trade and logistics. The aim of this study is to analyse the trends in logistics performance and trade, in particular imports and exports. Overall logistics performance is analysed logistics performance index (LPI), connectivity, infrastructure and customs procedures (costs and time associated with importing and exporting). The results show that improvements in logistics factors improve trade volumes. It is recommended that the South African government and other role players take into account the significant impact that logistics has on the country's competitiveness. Improvements in these elements will result in improvements in trade which is instrumental in the country's growth and development.

INTRODUCTION

The liberalisation of global trade has resulted in the reduction in the imposition of traditional trade barriers in the form of tariff barriers. A vast majority of countries have reduced or eliminated tariff barriers on goods imports in accordance to World Trade Organisation (WTO) agreements. The number of trade agreements between countries and regions has subsequently proliferated in an effort to increase trade and development. The role of trade as an instrument for development has been well documented [1-8]. Similarly, vast empirical evidence of trade as an instrument of development has been documented e.g. the East Asian Tigers, and more recently China's rise as a global power is attributed to trade. Trade provides domestic products access to larger and more dynamic markets, access to new technology that promotes innovation, access to foreign currency and credit [9].

However, seeing as trade provides uncharted access to international markets, the intensity of competition in the global markets has increased. With the decline in traditional barriers to trade, shifts in the sources of competitive advantage are being experienced. One of the key sources of competitive advantage in international markets is logistics [10].

The ability of firms or supply chains to efficiently deliver the right products, at the right time, in the

right quantities and at the right cost now sets firms, supply chains and countries apart. Coca-Castaño et al. [11] distinguish between logistics hardware and logistics software. Logistics hardware refers to country level logistics infrastructure related to connectivity to the rest of the world (coverage of transportation networks) while logistics software relates to competencies in logistics management. Competitive advantages are no longer determined by factor endowments or cost of production advantages only, but also by the coverage and extensiveness of transport networks (connectivity; [12]), quality of infrastructure (ports, rail lines etc; [11,13-18]), the efficiency of customs procedures [19]; time to import or export; the cost to import or export [13] and overall logistics performance [10].

There is no widely accepted definition of logistics in studies that have measured its national and regional effects on trade [10]. The aim of this study is to analyse the trends in logistics performance and trade, in particular import and exports.

RESEARCH METHOD

The data used for this study was obtained from World Bank's world development indicators database [20]. Gross domestic product data (at constant local currency units) was obtained from the World Bank national accounts data and OECD National Accounts data file. Data regarding goods imports and goods exports (balance of payment in current US dollars) were obtained from the International Monetary Fund, Balance of Payments Statistics Yearbook and data file. This data was used in all comparisons.

Data regarding import and export customs issues also included the cost to import and export (in US\$) was obtained from the World Bank Doing Business project. The efficiency of the customs clearance and the lead time to import and export were obtained from the World Bank and Turku School of Economics, Logistic Performance Index (LPI). The burden of customs procedure (extremely inefficient to extremely efficient) was obtained from the World Economic Forum Global Competitiveness Report (GCR) and data files. The number of documents as well as the time to import and export were also obtained from the World Bank Doing Business project.

To determine the interaction between GDP, goods imports and exports and transport infrastructure, the following data were used: the quality of port infrastructure (low to high) was obtained from the LPI; the length of rail lines, measured as total route-km was obtained from data from the World Bank, Transportation, Water and Information and

Communications Technologies Department, Transport Division; and the quality of port infrastructure, (extremely underdeveloped to well developed and efficient) was obtained from the GCR.

Data for network coverage (connectivity) included the liner shipping connectivity index obtained from the UNCTAD Review of Maritime Transport 2010; length of the rail lines; and, in the absence of airline connectivity information, airfreight volumes were used, obtained from the ICAO Civil Aviation Statistics of the World and ICAO staff estimates.

Analyses of the interaction between GDP, imports and exports and time issues were as follows: lead time to import and export (median case, days) were obtained from the LPI; the time to import and export was obtained from Doing Business; and the frequency with which shipments reach consignee within the expected time, measured on a five-point Likert type scale from low to high was obtained from the LPI.

Within the specified data elements, the maximum range of available data was used. All data was indexed to 2010, to provide an appropriate base for comparison of diverse data sources. Data is illustrated using logarithmic trend lines.

RESULTS AND DISCUSSION

Logistics Performance Index (LPI)

The figures presented in this section represent the trend associations between logistics and trade for South Africa between 2005 and 2014. Figure 1 presents the logarithmic trend lines of annual GDP, import and exports.

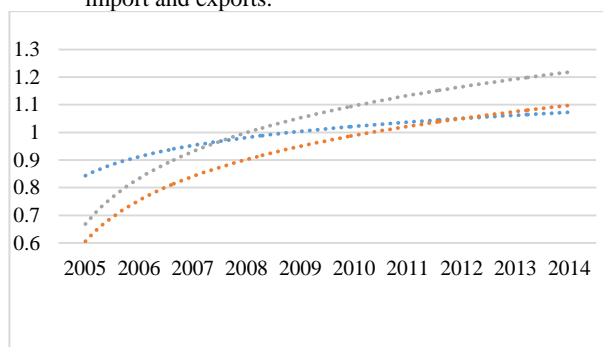


Figure 1: GDP, imports and exports

A positive trend association is observed for all three indicators. Imports increased at a slower rate than GDP between 2005 and 2007. From 2007 onwards and increasing growth in goods imports outpaced growth in GDP. From 2005 GDP growth was greater than the growth in exports, until the two converge in 2012. From 2012 exports were higher than GDP.

Figure 2 shows GDP, imports, exports and the composite logistics performance (LPI) index for the time periods 2007, 2010, 2012 and 2014. The trend associations between exports and LPI were similar to those of GDP and LPI between 2007 and 2012 in that as LPI remained relatively constant export and GDP increased, whereas when the LPI declined between 2012 and 2014, exports and GDP increased at a slower rate. In contrast, Imports increased at a higher rate than GDP and imports throughout the

time period and appeared to increase at a higher rate after the decline in the LPI in 2010.

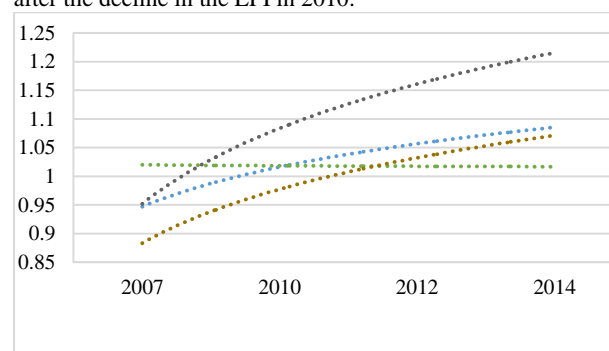


Figure 2: Imports, exports & LPI

The following section presents the trend associations between GDP, imports, export and the individual indices comprising the composite LPI. Figure 3 illustrates the trend associations between the LPI sub-indices; imports; exports and GDP. The efficiency of customs clearance decreased from an index value of 1.01 in 2007 to around 0.99 in 2014. Imports increased at an increasing rate whilst GDP and exports increased at a decreasing rate. Similarly, the quality of infrastructure and ease of arranging competitively priced shipments indices experienced a negative trend association with GDP, exports and imports as depicted in Figure 3.

The competence and quality of logistics services; on-time performance and frequency with which shipments reach consignee within scheduled or expected time sub-indices improved slightly in the period 2007 to 2014 and appear to be positively associated with imports, exports and GDP. Similarly, the ability to track and trace sub-index declined although more significantly than the aforementioned sub-indices. This was negatively associated with increases in GDP, imports and exports.

Figure 3: GDP and LPI sub-indices

Time

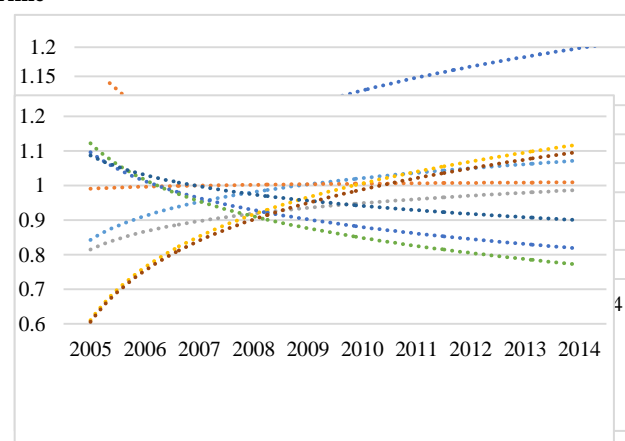


Figure 4 depicts the trend associations between imports of goods and time variables. The time to import (days) and lead time to import (days) decreased significantly. This in turn resulted in improvements in the LPI sub-index frequency with which shipments reach consignee within scheduled or expected time improving. There appears to be an association with improvements in time to import as

imports increased with decreases in the number of days and lead time to import.

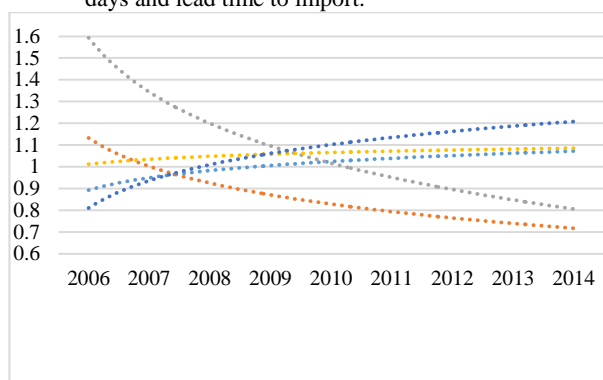


Figure 4: Imports and time

Figure 5 depicts the trend associations between exports of goods and time variables. The time to export (days) and lead time to import (days) declined between 2006 and 2014. This in turn resulted in improvements in the LPI sub-index frequency with which shipments reach consignee within scheduled or expected time improving. A reduction in the number of days and lead time to export appears to be associated with increases in export volumes.

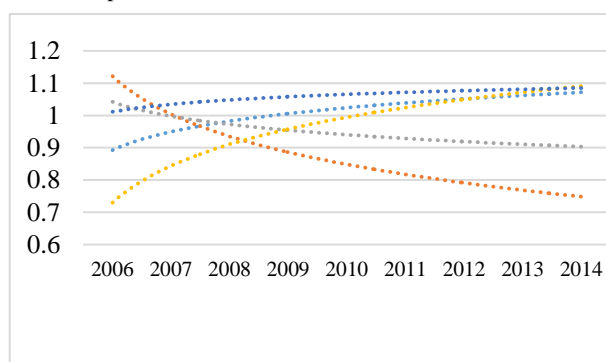


Figure 5: Exports and time

Connectivity

Connectivity is represented by the following indicators: liner shipping connectivity index, rail lines (total route-km) and air transport, freight (million-ton-km). For air freight and rail lines increases are observed from 2005 until 2011. Connectivity in these modes stagnates from 2011 onwards. This is in line with Limão and Venables' (2001) findings that transport connectivity affects accessibility and the volumes of trade especially in Africa with limited connectivity inhibiting higher volumes of trade. Contrary to this liner shipping connectivity increases between 2005 to 2014. There appears to be a strong correlation between liner shipper connectivity, exports and imports. Air freight and rail lines are largely unassociated with imports and exports.

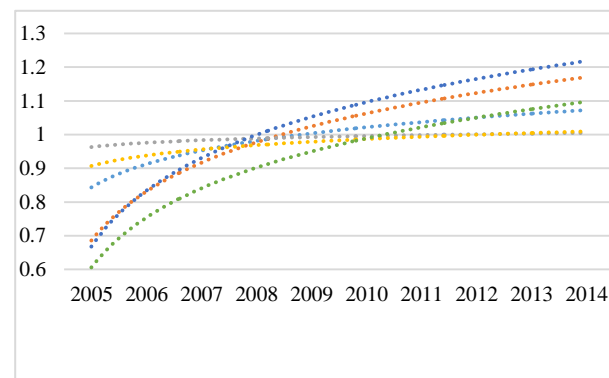
Figure 6: Exports, imports and connectivity

Infrastructure

The association between infrastructure and trade is inferred by analysing the World Economic Forum's (WEF) quality of port infrastructure index, rail lines (total route-km) and the LPI sub-index quality of trade and transport related infrastructure.

Improvements in all infrastructure variables, with the exception of rail (total route km) are seen to be positively associated with increases in GDP, imports and exports.

A negative relationship exists between the total route km of rail and imports and exports. This can be attributed to closing down of private sidings as well as the deterioration of rail infrastructure in South Africa. Martínez-Zarzoso [14] found that improvements in transport infrastructure reduced transport costs and increased the volumes of



ceramics exports in Spain.

Figure 7: Exports, imports and infrastructure

It is important to note that the rail lines (total route km) under the infrastructure variable differs from that of connectivity because as they were plotted over different time periods. Under the connectivity analysis the period was from 2005. In the infrastructure discussion, the period covered was from 2007. This is a fundamental flaw in using trend lines, as they do not take preceding data into account.

Customs procedures

Figures 8 and 9 show the trend association between exports and customs procedures and imports and customs procedures respectively.

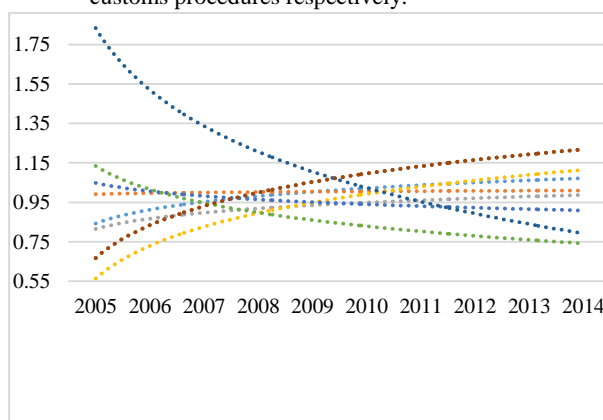


Figure 8: Exports and customs procedures

Customs procedures are assessed by analysing the LPI sub-index- efficiency of customs clearance process; the WEF burden of customs procedures, cost to export per container, number of documents to export (import); time in days to export (import); and lead time in day to export (import). The LPI sub-index improved slightly. These improvements are concurrent with improvements in the burden of

customs, the reduction in time to export (import) and the reduction in lead times. Export increased from an index value of 0.6 in 2005 to 1.1 in 2014.

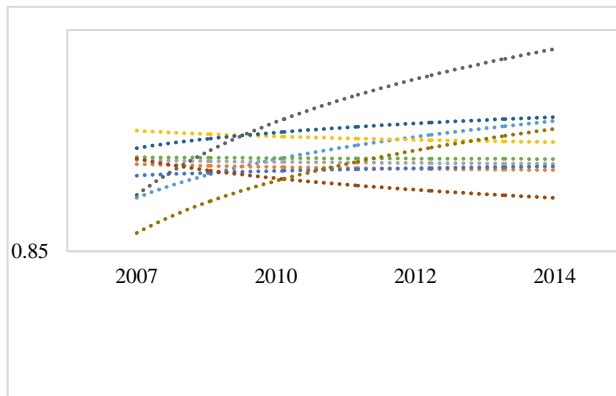


Figure 9: Imports and customs procedures

Similarly, imports increased from an index value of 0.7 to 1.2 between 2005 and 2014. However, the cost to export (import) increased with both exports and imports. The higher fixed costs associated with organizing an export or import shipment such as were found to influence the volumes and frequency of shipments with firms opting to ship larger shipments less frequently [19,21].

CONCLUSION

The aim of this study was to assess the trend associations between logistics and trade. Logistics was assessed by analyzing the trend associations of the following variables; the logistics performance index, time, infrastructure, connectivity and customs procedures (for both imports and exports). Time trends for both imports and exports were analysed against each of the aforementioned logistics variables. The results showed that overall imports were growing at a faster rate than exports, indicating issues with local economic activity and South Africa's increasing reliance on other countries to provide goods. Perception regarding logistics competency is that it is improving slightly, but the effect is insufficient to make a real difference to cost of importing and exporting goods (or volumes). This is the case with most of the LPI sub-indices analysed in this study. The results suggest that any of improvements in competencies are offset against fact that skills shortage in general and in logistics in particular remains acute. Rail connectivity through investments in rail infrastructure has increased with, expansions of the Gautrain and on the Sishen-Saldanha line has increased capacity. Our findings however, show a decrease in the rail network and this may be associated with closure of branch lines. In general, South African rail not providing the connectivity it should as it is plagued by ageing infrastructure resulting in massive inefficiencies and frequent delays compared to road transport.

With regards to port infrastructure, expansions have been observed on existing infrastructure. However, the main port, Durban is congested and improvements will still take time. Many ports struggle with old equipment. Logistics costs are

impacted by excessive use of road over rail for long distances of inland linkages. Inland road linkages are mostly in good condition on main corridors but problematic on feeder roads as there is a general deterioration of infrastructure. Finally the time to import and export is improving, but still long compared to developed countries owing to border congestion and corruption at border posts remain problematic.

It is recommended that the South African government and other role players take into account the significant impact that logistics has on the country's competitiveness. Improvements in these elements will result in improvements in trade which is instrumental in the country's growth and development.

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Does Team Altruism Enhance PsyCap?

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ABSTRACT

The potential enhancement of psychological capital (PsyCap) is an advantage in business development. More clarity is needed to determine if team altruism may play a role in this regard. This quantitative prediction of PsyCap is determined by Structural Equation Modelling with team altruism as independent variable. The significant positive prediction of PsyCap is a strong indication to management that PsyCap is a phenomenon that can be developed by nurturing additional variables, such as team altruism.

INTRODUCTION

Business is becoming more aware of the possible advantages of applying positive organizational behavior in practice [1] as initiated by Luthans [2] through the concept of Positive Organizational Behavior (POB). POB is seen as 'the study and application of positively orientated human resource strengths and psychological capabilities that can be measured, developed and effectively managed for performance improvement in today's workplace' (p.59) [3]. In support of capitalizing on human strengths, altruistic team behavior and the different skills that team members have, could add value to organizational performance [4]. Team altruism is the voluntary, interdependent and self-sacrificial contribution of team members towards functional teamwork [5]. A warning is that team altruism has to be seen in balance, as excessive team altruism could lead to burnout. Though performance of teams is significantly positively associated with PsyCap ($r = .28$; $p < .01$) [6] and altruism is aligned with an increase in knowledge [7] as well as healthy contractual relationships [8], it is not clear to what extent team altruism could contribute to the functioning of PsyCap.

PsyCap, coined by Luthans, et al [9] is practically implied by the four characteristics of hope, efficacy, resilience and optimism. The hope of paths to goal setting, self-efficacy in the confidence in success, resilience to persevere and optimistic attributions of the future explains the functioning of PsyCap [10]. PsyCap is regarded as a state-like construct, implying that behavior can be changed and developed [11]. This is an indication that team altruism could play a role in the molding PsyCap, to the potential advantage of the organization.

Problem statement It is not clear to what degree team altruism plays a role in the functioning of PsyCap.

METHOD

This exploratory quantitative study, consisted of a target sample of 598 individuals, 55,8% male and 43,6% female (.7% missing), across many industries and job levels. The age of the participants varied between 18 and 64 years, mainly black Africans (68,2%), who were married, 50,4% or single 43,7%, working between 8 months and 40 years. The sample is represented by mainly general workers (29,8%), junior managers (21,6%), and mid managers (19,1%). Participants were asked to participate voluntarily and contacted by email and through the distribution of hard copies. Confidentiality was assured as well as the right to withdraw at any time. SPSS was used to validate the instruments and to determine the prediction. Confirmatory Factor Analysis was done on the original four factors of both the team altruism and PsyCap scales. Items were deleted that cross-loaded with a difference less than .40. The 24-item PsyCap instrument [11] resulted in three factors: self-efficacy, resilience and optimism. Cross and low loadings lead to the removal of hope and the reverse score items of resilience. The Cronbach's Alpha of the four scales were respectively .90, .80 and .75. The Van Wyk [12] Team Altruism Instrument, measured on a 5-point, 20-item Likert-type scale, resulted in three factors (Cronbach's Alpha in brackets): team goals (.93), collegiality (.94), and after hours support (.93). Cross-loadings lead to the removal of the problem solving factor. The totals of team altruism and PsyCap were used to determine the prediction.

RESULTS

Confirmatory Factor Analysis was done on the sub-scales of both the team altruism and PsyCap scales. In both the scales, only three of the four original factors loaded sufficiently. The indices of the Confirmatory Factor Analyses are reported in Table 1. Where Mardia's Coefficient did not fall within parameters, Robust Maximum Likelihood indices are reported. Only the resilience scale fell within Mardia's Coefficient parameters, in which case the Maximum Likelihood indices are reported.

Table 1. Confirmatory Factor Analyses of the team altruism and PsyCap sub-scales

Model	Mardia's coefficient	Y-BX ² (df)	Comparative fit index (CFI)	SRMR	RMSEA	RMSEA 90% CI
Team goals	82.9392	116.702 (20)	.969	.034	.090	.074 : .106
Collegiality	60.4002	.495 (2)	1.000	.005	.000	.000 : .053
After-hours support	No CFA only 3 items					
Self-efficacy	63.2602	64.768 (14)	.952	.040	.078	.059 : .097
Optimism	32.6328	.914 (2)	.957	.041	.059	.039 : .079
Resilience	29.2457	3.104 (2)	.991	.019	.066	.000 : 0.092
Team altruism	122.3657	282.685 (87)	.961	.053	.061	.053 : .069
Total						
PsyCap Total	92.2358	226.532 (87)	.939	.054	.052	.044 : .060

The indices of Table 1 shows a good fit with the data, with the exception of collegiality showing an over fit [13]. The indices shows a good CFI fit, above .90. Standardised RMR and RMSEA a

reasonable to good fit with values lower than .08 and approaching .05 respectively.

The Structural Equation Model of the prediction PsyCap is represented in Figure 1.

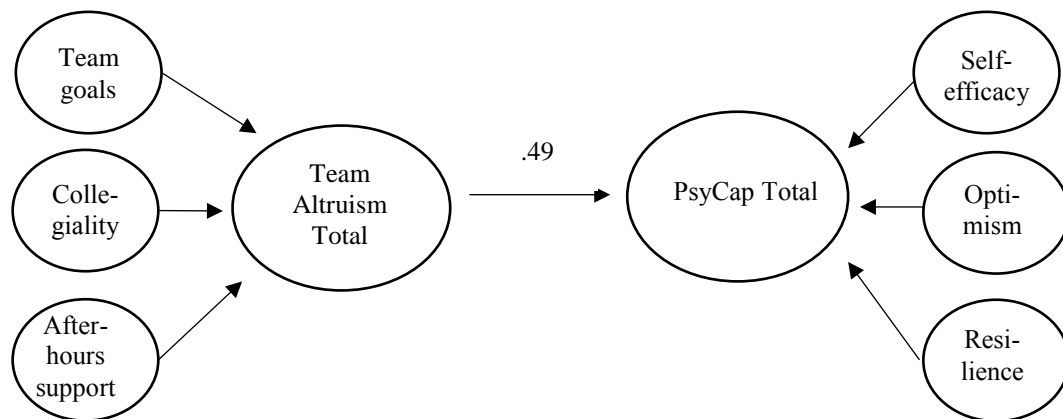
**Figure 1. Prediction of PsyCap total with team altruism total as independent variable.**

Figure 1 indicates that a 49% regression of team altruism on PsyCap. The significance of the fit of this prediction is supported by the CFA reported in Table 2.

Table 2. CFA of Team Altruism Total regression on PsyCap Total (6 Iterations)

Bentler-Bonett normed fit index	.902
Bentler-Bonett non-normed fit index	.940
Comparative fit index (CFI)	.945
Bollen's (IFI) fit index	.945
Root Mean-Square Error of Approximation	.044
(RMSEA) 90% confidence	(.039 : .048)
Scaled Chi-Square (Yuan-Bentler)	848.007 (398 df; $p = 0.000$)

Table 2 indicates a good fit with the data, with incremental fit indices above .90, and absolute fit measures within parameters and < 0.05.

DISCUSSION

The significant regression of 49% of team altruism Total on the PsyCap Total, provides more clarity on its significant positive effect. This finding is supportive of the important role that team altruism plays in business and the results of Rego et al. [6] where team performance has a 7.84% common variance with PsyCap. This is an indication that management could capitalize on the positive influence of team altruism on PsyCap.

Limitations, future research and implications for management

The encouragement of team altruism has to be applied with care, as too much forceful team altruism could lead to burnout [5]. More research is needed on the healthy functioning of team altruism determining the optimal level of its functioning to maximize PsyCap output and prevent the negative adverse effect of burnout. Studies across cultures and industries should shed more light on the similarities or differences in this relationship.

CONCLUSION

This investigation supports the significant role that team altruism plays in improving PsyCap. This contributes to body of knowledge and implicit role that team altruism can play in advancing PsyCap in business. Care should be taken that excessive team altruism does not lead to burnout and jeopardize PsyCap. This finding provides more insight into the body of knowledge explaining antecedents of PsyCap, as this relationship is measured for the first time.

The results is a clear indication that human resource managers should encourage healthy and balanced team altruism, which could improve PsyCap – an asset in any organization.

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Uncovering the Beauty of the Capital Nature of PsyCap: A Financial Perspective

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Given expectations as a common explanation for both market performance and human behavior, financial models might offer significant meaning in predicting the outcomes of individual activities, as they do to financial assets. For example, the *Reduced Form Model*, with emphasis of idiosyncratic risk factors, is effectively used to forecast business performance via probability of default on the company's debts over the next instant period. Being inherent in the capital nature, psychological capital or PsyCap, the vital cognitive process that breeds behavior, may fit this financial "outfit."

Through the technique of hazard rate estimation, this paper attempts to apply PsyCap as an input of the model to yield the probability of individual's default on his or her goal(s) for the next instant planned period. Implications for practices and limitations are also discussed.

Keywords: PsyCap, self-efficacy, hope, optimism, resiliency, reduced model, hazard rate estimation.

Link between Customer Service and Loyalty in Four-star Hotels in a Developing Economy

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ABSTRACT

Recently, Peru has been an attractive destination in the tourism market. Therefore, the offer must be prepared to be competitive and improve its market share.

The companies must not only strive to build strong brands through quality, but to attract customers who demonstrate loyalty, which is more cost-effective and creates a greater value. The main purpose is to identify whether the service quality is a relevant causality factor that builds loyalty. This study considered four-star hotels located in Miraflores (Lima, Peru) using SERVPERF methodology—developed by Cronin and Taylor (1992)—to identify the main service quality factors valued by customers. The results showed that the service quality provided by four-star hotels is highly valued by customers; however, the hotels generated low levels of loyalty.

1 INTRODUCTION

Nowadays, hotel customers are not satisfied with a hotel that offers a range of services; they prefer a hotel that offers personalized services. Therefore, the hotels are required to formulate new and innovative customer retention strategies, since it is becoming increasingly difficult to ensure client loyalty. According to Carlos Canales (2014), President of the National Chamber of Tourism in Peru, hotel services are increasingly becoming prominent and more than a US\$2 billion investment is expected over the next three years. The four-star and five-star hotels—targeted to the segment with the highest purchasing power—are geographically concentrated in more than 60% in Lima. This market shows high levels of competitiveness in the services sector which contributes to question whether the actions taken by the hotel companies, with regard to the provided services, are aimed to increase and/or decrease their market share.

Several studies for the hotel service sector have been found, that explain the quality of service and its impact on the generation of loyalty. Gracia and Grau (n.d.) conducted an empirical study in 116 hotels and tourist restaurants in Spain, concluding that the positive perception of the service quality

influenced the attitudes of loyalty to the hotel and the restaurant that provided the service. On the other hand, Zamora et al. (2008), evaluated the loyalty development process in hotel guests using the methodology proposed by Vasquez-Párraga & Alonso (2000), in three types of hotels in Chile. They demonstrated that “commitment” is the most important construct to explain loyalty.

2 LITERATURE REVIEW

Quality of service refers to «the judgment of the consumer on the excellence and superiority of a product» (Parasuraman, Zeithaml & Berry, 1988, p. 3). Its assessment goes beyond the specific attributes of the product consumed, since the consumer will always compare the perceived experience between two or more similar goods or services. The quality perceived in the market of intangible products requires a different treatment and concept than that of tangible goods. Grönroos (1994), argued that the perceived quality of service depends on the comparison of the expected service with the perceived service. On the other hand, for Rust & Oliver (1994), the satisfaction judgments are the result of the difference perceived by the consumer between his expectations and the perception of the result. Service quality also considers two models or schools for its conceptualization: (1) the Nordic model, developed by Grönroos (1984), in which two dimensions are identified: (a) the technical quality, and (b) the functional quality; and (2) the American model, developed by Parasuraman et al. (1985), based the concept of service quality on the disconformity paradigm centered on the difference between the expected service level and the customer perception about the service level. Five dimensions are considered in the service quality experience: reliability, responsiveness, security, empathy, and tangibles.

Santomá & Costa (2007), classified the research studies of quality in the hotel sector into three groups according to their nature: (a) studies that conducted a theoretical analysis of the concept; (b) studies of quality management; and (c) studies that measured the quality of the service. The latter had

the largest number of research studies; the majority applied the SERVQUAL model, which is the most used in an academic environment. It was created by Parasuraman et al. (1985) and refers to a multiple-scale of values that identifies the difference between the customers' expectations and perceptions. There is another model called SERVPERF, developed by Cronin & Taylor (1992), which focuses on the study of quality in the results. The SERVPERF model uses the 22 items with the 7-point Likert scale of the SERVQUAL model, but without the expectations column. Loyalty studies have mostly focused on consumer behavior toward tangible goods and to a lesser extent on service brands. There is loyalty in situations where the consumer evaluates several brands of similar category and makes the purchase decision. These internal processes allow distinguishing the loyalty from other repetitive purchase behaviors (Bloemer & Kasper, 1995). Two basic approaches describe loyalty, according to the research studies: the attitudes and behaviors approach. The three main theoretical orientations were developed based on these two approaches: The behavioral approach, the attitudinal approach, and the mixed attitude-behavioral approach. In contrast, loyalty via customer satisfaction differentiates satisfaction as a goal, but the objective is to build loyalty, consequently, the customer needs to be satisfied in order to build the customer loyalty. Vasquez-Párraga & Alonso (2005) proposed that to build the customer loyalty, a strong commitment—either with the product, service, or company—is needed.

The instruments used for the measurement of loyalty led to a series of proposals to measure loyalty were grouped in two types: behavioral or operational, and attitudinal-behavioral. Colmenares & Saavedra (2007) described behavioral or operational measures as post-action (buy) measures that show their performance or actual outcome (effects). They base the loyalty in the continuous choice of a same alternative of purchase over time. In terms of attitude-behavioral measures, the same authors (Colmenares & Saavedra, 2007) explained that they measure the degree of commitment that the individual has developed toward the brand, demonstrated by preference and purchase intention. They are measured through observation, interview and attitude scales. Zeithaml et al. [11] developed a 13 item-scale to measure loyalty as a behavioral intention. This scale was classified in five dimensions: loyalty, switch, price sensitivity, external, and internal complaints. The measurement instrument of this study is based on this rating scale.

3 METHODOLOGY

This is a cross-sectional quantitative study and a non-experimental descriptive-correlational research, since the data was collected without manipulating. The sample size was 381 people to be surveyed. The data was obtained through surveys and the instrument was a questionnaire composed of two groups: the first group included 25 service quality questions in accordance with the dimensions of the SERVQUAL model of Parasuraman et al. (1988):

tangibility, reliability, responsiveness, security and empathy. But only the respondents' perceptions were evaluated so that the scale became SERVPERF proposed by Cronin & Taylor (1992). The second group included 11 loyalty questions based on the behavioral approach incorporating the measurements subsequent to the purchase. Several items were included in the "behavioral intention" scale developed by Zeithaml et al. (1996), to measure the customer's loyalty. Both groups were measured using the 5-point Likert scale from 1 to 5. Additionally, some variables were adapted for the purpose of the investigation. **Variable 1:** Quality of service. The six dimensions of the model elaborated by Parasuraman et al. (1988), were adapted to the hotel market: (a) tangible and technological equipment; (b) accessibility; (c) professionalism of staff; (d) security; (e) competitive hotel offer; and (f) empathy. **Variable 2:** Consumer loyalty. Measured as the intention of behavior. The indicators proposed by Zeithaml et al. (1996) were used: (a) fidelity; (b) change; (c) price sensitivity; (d) external complaint; and (e) internal complaint. The hypotheses developed in this study are based upon the SERVQUAL / HOLSER /SERVPERF models.

4 RESULTS

The construct validity and its dimensionality was studied, using the Kayser Meyer & Olkin (KMO) test that yielded a value of 0.95, which is rated as "excellent" in a range from 0 to 1. The Bartlett's test for sphericity was also used to evaluate the applicability of the factorial analysis for service quality. This test yielded a value of 2290.3 for X^2 with a significance level of 0.000, which reflects the significant intercorrelations among the variables justifying the evaluated construct. The principal component analysis was used to identify three components or factors, from which the extracted factor No. 1 (location and personnel professionalism), explained 50.7% of the service quality total variance; factor No. 2 (comfortable facilities and efficient service) 5.0%; and factor No. 3 (superior hotel offer) 4.8%. The Cronbach's Alpha coefficient was used to verify the service quality reliability. The values fluctuated from zero to one. The three extracted factors were highly reliable ($\alpha > .800$). These were: "Location and personnel professionalism"—which was the factor that obtained the highest reliability ($\alpha: .932$)—followed by "Comfortable facilities and efficient service" with ($\alpha: .895$) and finally "Superior hotel offer" with ($\alpha: .850$).

For Loyalty, the principal components extraction resulted in three components: (a) Factor 1 "Behavior - loyalty," which explains 34.4% of the total explained variance; (b) Factor 2 "Behavior - switch," which explains 16.6%; and (c) Factor 3 "Behavior - internal complaint," which explains 11.1%. The validity is, therefore, correct

The item-scale correlations are higher than 0.3 in all cases, which reflects a good relationship among the

evaluated items and the construct. The reliability and the internal consistency are estimated using the Cronbach's Alpha Coefficient (α). A total Alpha coefficient of .707 was obtained, which revealed the internal consistency of the scale and the homogeneity of the items in the loyalty questionnaire, with the following alpha coefficients by factors: 0.85 for "Behavior - loyalty", 0.56 for "Behavior - switch" and 0.62 for "Behavior - internal complaint".

The Kolmogorov-Smirnov test was used to determine if the components extracted from each variable, obeyed or not to a normal distribution. The test was applied in the components extracted from each of the study variables. Both, the three "service quality" factors and the three "loyalty" factors, did not conform to a normal distribution—and given that each factor evidenced a significance less than 0.05—the Spearman's rho coefficient (r) was used to contrast the correlation hypotheses testing. The values were classified from 0.00 to 0.019: very low correlation; 0.2 to 0.39: low correlation; 0.4 to 0.59: moderate correlation; 0.6 to 0.79: good correlation; and 0.8 to 1: high correlation. In addition, the rho coefficient is confirmed if $p < 0.05$. The three factors of service quality related to the three loyalty factors showed low-intensity positive correlation coefficients, less than 0.2 with a confidence level of 99%. Therefore, we can conclude that there is a very low correlation. The correlation analysis among the Service items and the Loyalty factors showed that the correlations are generally low and positive. Conversely, several correlations had a significance level of $p > 0.05$; hence, we reject that the variables are related to the loyalty factors. In addition, the following two items showed no correlation with the three factors: "Smart appearances of the personnel" and "the personnel are competent and professional." The service quality items showed different behaviors with each loyalty factor.

4.1 Comparison of the Hypotheses

The comparison results of the hypotheses were the following:

- **H1: The quality of service perceived in four-star hotels located in the district of Miraflores has a high degree of association with consumer loyalty.** The quality of service found has a low correlation coefficient (r : 0.278) with the loyalty variable, within a significance level of .000, with a margin of error of less than 1%, at the 99% confidence interval. Therefore, the hypothesis is not supported.
- **H2: The location of four-star hotels located in the Miraflores district has a high degree of association with consumer loyalty.** The location has a low correlation coefficient (r : 0.248) with the loyalty variable, within a significance level of .000, with a margin of error of less than 1%, at the 99% confidence interval. Therefore, the hypothesis is not supported.
- **H3: The personalized attention of four-star**

hotels located in the district of Miraflores has a high degree of association with consumer loyalty.

The personalized attention has a very low Spearman RHO correlation coefficient (r : 0.152) with the loyalty variable, within a significance level of 0.00, with a margin of error of less than 1%, at a 99% interval of confidence. Therefore, the hypothesis is not supported.

- **H4: The internal customer performance of four-star hotels located in the Miraflores district has a high degree of association with consumer loyalty.** The variable 'Internal Customer' developed from the items related to employee performance; had a low intensity correlation coefficient (r : .204) with the loyalty variable, within a significance level of .000, with a margin of error of less than 5%, at the 95% confidence interval. Therefore, the hypothesis is not supported.

5 CONCLUSIONS AND RECOMMENDATIONS

With respect to the attitudinal-behavioral measurements, Martin & Rodriguez (2011), indicated that the commitment, attitude, and repurchase might be influenced by exogenous factors that divert the customer's response. The results confirmed this statement, because the quality attributes only explained the loyalty in less than 30%. It was also noted that the customers believed that the personnel is very friendly and polite; however, the personalized customer service obtained a lower score. We also can identify that the main service items that have higher correlations with loyalty were grouped as follows: (a) The price of the provided services are consistent with the perceptions; (b) hotel: good location, cozy and pleasant facilities; and (c) wide range of additional services offered at the hotel.

For future studies is also recommended to consider the influence of the service quality on loyalty, according to the price of the service. It is very likely that the service quality influences more in segments with lower prices, whereas its effect might change or decrease if the price is higher. Hence, it is also advisable to conduct studies aimed to determine the most relevant variables to build loyalty.

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Available upon request

An Exploratory Study regarding Moderating Effects of Festival Quality on the Relationship between Tourism Experience and Tourism Satisfaction

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Abstract

Various festivals are being held throughout the year at different regions of Japan. This study is an exploratory study verifying “tourism experiences” and “tourism satisfaction” tourists had through tourism activities in regions when they visited the particular region purely for the purpose of sightseeing as well as of effects of participation to local festivals from among tourism activities. Data obtained through a questionnaire survey targeting on visitors to the Ueno Tenjin Festival in Iga City, Mie Prefecture of Japan were used for analyses.

A hierarchical multiple regression analysis showed that there are positive correlations in both, the relationship between tourism experiences and tourism satisfaction as well as the relationship between festival quality and tourism satisfaction. However, in confirming interactive effects of tourism experiences and festival quality, the effect is mutually opposing rather than mutually enhancing. In performing a simple slope analysis using significant interactive effects, the effects of tourism experiences were halved when the festival quality exceeded a certain level.

The present study revealed the possibility that success of a festival might rather have a negative effect on local tourism industry when planning a festival for the purpose of tourism promotion or development. Accordingly, people in charge of local tourism marketing and policies are required to diversify tourism experiences of visitors while considering both of local festivals and other tourist attractions.

1. Introduction

Evaluation of tourist sites generally made by tourists indicate evaluation of experiences of tourists themselves (tourism experiences) including activities experienced, events participated and services provided (Oh et al, 2007). While evaluation criteria of tourism experiences differ depending on various purposes set by tourists, it might be possible to perform evaluation based on some common criteria upon categorizing features of tourist sites or visited regions.

The present study aims to clarify roles of effects festival or event qualities as moderators have on processes during which tourism experiences lead to satisfaction of tourists, and to consider effective and

efficient strategic directions to improve tourism experiences and local festival qualities.

2. Theoretical background of the study

2-1. Tourism Experience

The concept of tourism experience has first been advocated by researchers in the field of tourism in the 1990s which is the era of post-modern tourism. They defined this concept as “experiences different from those of daily lives” (Uriely, 2005). However, it needs to be redefined before it can be used as a concept of current tourism experiences since activities at tourist sites and regions as well as consumption patterns largely differ between those of tourists in the 1990s and current tourists.

2-2. Festival Quality

Many of the prior studies related to festival quality have emphasized verification of their effects on satisfactions and behavior intentions of visiting participants. However, studies for proving more complex structural relationships are now being made upon considering effects of parameters such as “festival value” (Lee et al, 2007; Yoon et al, 2010), “experience quality of festival participation” (Cole and Illum, 2006) and “effects on festival acknowledgement” (Yuan and Jang, 2008).

3. Hypotheses of the study

3-1. Tourism Experience and Tourism Satisfaction

Since service is almost all that is provided to tourists at tourist sites and regions, it is not too much to say that evaluations related to tourism experience are evaluations tourists give to various services they have been provided with.

On the other hand, while Barnes et al (2014) advocating destination brand experience have identified four factors (sense, affection, behavior and intellect) of destination brand experience having positive effects on tourism satisfaction, they revealed that these factors do not directly affect revisit intentions and words of mouth. This indicates that another variable, i.e. tourism satisfaction, needs to mediate to make destination brand experiences positively affect revisit intentions and words of mouth. Based on the above, hypothesis 1 is set as follows:

Hypothesis 1: Positive tourism experiences of tourists related to visited tourist sites and regions positively affect tourism satisfaction.

3-2. Effects of Festival Qualities

There are not initial studies related to moderating effects of festival quality have been so far and will be verified in the present study. However, it is expected that tourism satisfaction will become even higher with increases in festival quality accompanying increases in tourism experience based on the presence of a positive correlation between festival quality and satisfaction as has been shown by previous studies considered herein. Hypotheses 2 and 3 will be set based on these contents.

Hypothesis2: Festival quality exhibits significant moderating effects on the relationship between tourism experiences and tourism satisfaction of tourists related to visited tourist sites and regions.

Hypothesis3: The higher the festival quality is, the more will the correlation between tourism experiences and tourism satisfaction of tourists related to visited tourist sites and regions be enhanced.

For achieving the purpose of the present study based on the above hypotheses, the following research model is presented.

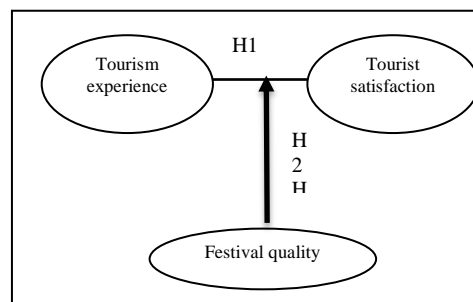


Fig. 1: Research Model of the Present Study

4. Research method

4-1. Scales

1) Tourism Experience

Tourism experience of the present study is based on destination brand experience as advocated by Barnes et al (2014). Accordingly, the twelve items of destination brand experience confirmed by Barnes et al (2014) are applied to the tourism experience of the present study. Their destination brand experience is comprised of four factors, namely sense, affection, behavior and intellect.

(2) Tourism Satisfaction

Tourism satisfaction is a concept based on customer satisfaction. Oliver (1996) defines this customer satisfaction to be "a reaction of a consumer when his or her demands are met". According to this definition, tourism satisfaction might be defined as to be "a reaction of a tourist when his or her expected tourism activities are met". Furthermore, tourism satisfaction is a result of

evaluation of one's tourism activities as a whole that is made upon completion of tourism activities. It should be noted that the measurement items of tourism satisfaction in the present study were identical to those used in the study of Bakera and Crompton (2000).

(3) Festival Quality

A remarkable number of items have been suggested to measure festival quality. This is due to the fact that it is impossible to uniquely define items for measuring qualities of festivals which scales and features differ from each other. Further, the subject of the present study resides in verifying the role of festival quality as a moderator in considering correlation of tourism experience and tourism satisfaction. Therefore, festival quality is perceived from the viewpoint of brand quality similarly to tourism experience.

4-2. Study Area

Iga City in Mie Prefecture, the subject of the present study, is a small city with a population of 9.3 million which is visited by approximately 2.5 million visitors yearly (Iga City, 2015). However, the number of visitors to the Iga District are on the decreasing trend since 2008.

4-3. Data Collection and Analysis Method

Data were collected for three days from October 23 to 25, 2016. 390 out of a total of 400 distributed copies were collected, and 377 copies were finally used for actual analysis. Regarding gender, 167 were male (44.3%) while 210 were female (55.7%). Regarding age, the majority (92 people) was in their 20s (24.4%) followed by 63 people in their 40s (16.7%) and 61 people in their 30s (16.2%).

5. Result of analysis

5-1. Features of Survey Subjects

Regarding gender, 167 were male (44.3%) while 210 were female (55.7%). Regarding age, the majority (92 people) was in their 20s (24.4%) followed by 63 people in their 40s (16.7%) and 61 people in their 30s (16.2%).

5-2. Reliability and Validity

Upon confirming reliability and validity, AVE values and the Cronbach's Alpha coefficients comprising the factor of affection among measurement items showed a somewhat lower level but validity was confirmed for all of the remaining items. Moreover, determination validity among factors was confirmed from results comparing AVE values and square numbers of correlation coefficients for all factors.

5-3. Verification of Moderating Effects

Hierarchical multiple regression was performed for verifying the hypotheses of the present study. Further, mean centering was performed for all of the variables prior to analysis since multicollinearity might be caused by interaction of the four independent variables of sense, affection, behavior and intellect and the moderating variable of festival quality.

According to the results of hierarchical multiple regression, the variable "overall tourism experience", which is hypothesis 1, and all of the four factors of tourism experience, that is, sense, affection, behavior and intellect, had positive effects on tourism satisfaction and the hypothesis proved to be true. Further, also "festival quality" had positive effects on tourism satisfaction in all of the analyses. On the other hand, the effects of interaction between the overall tourism experience or the four factors of tourism experience and the festival quality proved to be meaning that a significant relationship was obtained for only sense (and affection) out of the four analysis results so that hypothesis 2 proved to be partially true. The result of interaction effects of hypothesis 3 indicated conflicting effects in all of the analyses so that it was abandoned.

6. Conclusion

The present study has first verified that tourism satisfaction increases in case of positive tourism experiences visitors had through tourism activities at regions they visited out of mere tourism purposes.

The present study has first verified that tourism satisfaction increases in case of positive tourism experiences visitors had through tourism activities at regions they visited out of mere tourism purposes. This result indicates a possibility that the higher levels of interests or expectations of visitors become, the more will local tourism development mainly depend on festivals in case the festivals are held for the purpose of promotion of local tourism or enriched tourism activities which, in turn, might narrow the room for establishing strategies of tourism experiences utilizing tourist resources other than festivals. When tourists come to acknowledge that the festivals are the only tourist attractions through these processes, many tourists will have visit intentions only during the festivals seasons which might become a hindrance in establishing strategies for stably attracting tourists. Accordingly, it is necessary for those in charge of local tourism marketing and policies to consider ways of activating both of local festivals and other tourist resources.

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Sake Branding Strategy: Securing Necessary Ingredients and Attracting Customers/Inbound Tourists through Storytelling

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ABSTRACT

Sake consumption in Japan has gradually decreased since the 1970s. There are many reasons for this trend. Some of the important ones are: (1) Today a variety of alcoholic products are available, including many imported products that are attractive to young professionals and female consumers (e.g., wine); (2) The trend of healthy life style and well-being encourages less alcohol consumption; (3) The aging population in Japan also accelerated the downward trend of alcohol consumption; (4) The stricter laws against driving under the influence; and (5) The changing preference of young professionals and female consumers for weaker or fashionable alcoholic drinks.

In this transition process of the Sake market, customers are emphasizing quality over quantity. Thus, Sake producers have endeavored to produce and market high quality Sake through careful marketing research of changing customers' taste. Such efforts require new Sake branding strategies. However, to support such strategy, Sake producers must secure specific rice, the most important ingredient, required for producing high quality Sake. This study investigates Sake producers logistics efforts for securing necessary ingredients of high quality Sake and make this process as a differentiated strategy through storytelling to tourists, especially overseas visitors coming to Japan.

INTRODUCTION

Recently, not only Japan but also Korea & Taiwan are suffering serious economy related problems from such as population, decreasing birthrate, economic ageing low growth, and low interest rates. Under these adverse circumstances, however, Japanese "inbound" tourism industry sector alone shows remarkable growth for the last ten years. In 2015, the number of "inbound" visitors surpassed 19.73 million and reached 24.03 million in 2016, which is 21.8% increase over the previous year. Having observed this trend, on November 9th 2016, the Japanese government set up "Design Council for tourism to make Japan brighter & richer country" as its best card for regional revitalization (CHIHOU-SOHSEI) and estimates its success to be a key factor to the achievement of GDP of ¥600 trillion.

The council is chaired by Prime Minister Abe assisted by chief cabinet secretary Suga as vice chairman, consisting of 9 commissioners of respective ministries and 7 civilians including

two designated foreigners. The council has set a new target for reaching 40 million inbound visitors including 24 million regular tourists until 2020, and until 2030, 60 million including 36 million regular tourists.

To achieve this target figure, we need to prepare superior tourism related infrastructures. Sufficient lodging facilities proportionate to expected inbound tourists in number, environmental improvement in & around tourist spots including various shops & facilities for tourists, improvement of communication/responding abilities to foreign tourists in public transportation sector, enhancement of the capacity of International Airport, and improving the information release capabilities of local cities/communities to outside Japan will be issues to be addressed.

On the other hand from travel agents' view point, we need to observe preference variations (what are customers' needs?) of inbound tourists, which are changing with the course of time and apt to be affected by following factors; e.g. social stabilities, social economic situations, educational levels, life styles, and personal incomes.

Some examples of this transition can be observed in various aspects of travel; changes from group to individual tour, from urban to rural destinations, from shopping to experience & knowledge oriented tour.

As a result, travel related operators/agents begin to evolve their new business behavior to cope with this situation. They begin to change their marketing behavior from "passive" tour planning to "active" tour plannings. This is a great change from "how can we match customers' needs" policy to "how can we propose experience based tour with intriguing story (storytelling)" policy. The whole process for materializing a new "storytelling" tour requires active information gathering & public relations activities, which naturally transforms them into being positive and enthusiastic in business.

Considering the situations, we can understand that storytelling tour is becoming a main stream to boost the tourism industry and that finding out area resources is indispensable for enhancing promising customers.

In this context, it is meaningful to touch on Sake as one of the resources because it is ranked top along with foods among inbound travelers, travel purpose. The fact that 71.4% of inbound travelers selected "Foods & Sake" as travel purpose cannot be ignored, which reminds us the universal value of an old Japanese proverb "Dumpling rather than Flowers." This means that some people are more interested in the practical over the aesthetic.

Generally, Sake has already interested many foreigners and has been popular among them.

Standard Sake has been circulated by the popular name of “rice wine” outside Japan.

Taking this circumstance into consideration, it should be conceivable that Sake makes its world stage debut as a premium brand product “Sake” through differentiation by presenting its rich varieties of classified Sakes & its painstaking elaborate producing process.

Given this way, it is imperative for the tourism industry to collaborate with other sectors like agriculture, commerce, and technology for its development. And other partnership will arise in the evolving process of the tourism industry.

Preliminary study - special types of rice as ingredients of sake

The highly qualified reputed Sake needs selected special types of rice (Sakamai) to keep its quality. The distribution map of recent “Sakamai” production shows 36% “Yamada Nishiki (Hyogo Area)”, 24% “Gohyakumangoku (Niigata Area)”, 7% “Miyama Nishiki (Akita Area)”, 3% “Omachi (Okayama Area)”, and 29% other types. Among these “Sakamai” used to make Sake, “Yamada Nishiki” receives the highest reputation & evaluation, the features of which make it self best fit to Sake brewing. This type of rice has large “Shinnpaku” (opaque core part of a rice grain) and its grain has hard outside & soft inside with less protein component.

Accordingly, I picked up “Yamada Nishiki” as an object of the study and started investigation at its original birthplace – Yamada Special A, Miki City & Yokawa City, Hyogo Prefecture -. “Yamada Nishiki” is taller & has less water component than other types of rice. Due to this feature it is feeble against strong wind like Typhoon. It needs proper soil revitalization in order to absorb lipid to make its stem strong. The most important procedure in the process of fortifying stems is mixing up soils with rich minerals after the harvest every year. “Zeolite” from Iwayama (Fukushima Pre.) is also mixed with soils in order to grow larger “Shinnpaku.”

When rice seedlings are transplanted, farmers must leave enough space for sunlight to reach as far as the bottom part of stems and for the wind to blow through stems to protect from worms & diseases. “Nagata farming method (a kind of Spartan farming)” is another peculiarity. Farmers do nothing but cultivating soils after harvest and watering soils before/after transplanting. Remaining part is taken care by sunlight. It is close to nature farming.

Suitable place for this farming method is where it is hot during the daytime and cool in both morning & evening. Extreme temperature swings are said to be ideal for growing Sake rice. This is the reason why mountainous areas and mountain valleys with long autumn season are right places. Farmers wait the timing when fully ripened rice grains wither some 15% from its peak to cut for getting the best rice grains for Sake. Therefore, it is almost impossible for farmers who plants rice on a level paddy field to grow “Sakamai”. Sakamai requires peculiar geographical features as mentioned above. It is generally known that Koji (rice-malt), Shubo (yeast mash), Moromi (main mash) are

indispensable three components for sake brewing. “Yamada Nishiki” reveals its advantage in this process, too. It fitted well to produce “fungus-containing malt” which is necessary for fermentation of rice.

“Muramai system” has been formed by mutual consent since 1890 as an effective adjuster between supply side – farmers - and demand side - breweries. But due to repeated changes of government policy on Sake & of taxation system, direct deals between farmers & breweries have been diminished recently. Under the circumstances, “JA” (The National Federation of Agricultural Cooperative Associations) has supported this “Muramai system” as an intermediary agent between the both parties. Looking into “Miki city” and “Yokawa city Yamada Nishiki special zone A” (both in Hyogo Pre.), 37 farmers & 9 breweries have dealings by using “Muramai system”. Then, what should be done now to make this system more effectively and efficiently?

Introducing “SCM (Supply Chain Management)” is worth being considered. SCM is an excellent new business idea combined “JIT (Toyota Just in Time) slogan with “BOT (Build to Order)” devised by “DELL”. It is a “hybrid” business idea bringing workload reduction, inventory reduction, and smooth cash flows, which enables both parties concerned to reduce the cost effectively. Simultaneously, implementation of this idea improves customers satisfaction and put a hallmark on products.

Success factors of SCM (Supply Chain Management) & “Muramai” (Made to Order contract) Collaboration

“Muramai” system between rice farmers and sake brewers has worked smoothly so that supply & demand balance can be held lately. However, keeping the balance in equilibrium is not as easy as it seems to be even if the system is based on “made to order” contract. When compared to the past statistics covering all Japan, the amount of Sake consumption has been decreasing unceasingly. Annual consumption of Sake in 1980 showed 1.5 million kiloliters and in 2008 showed 631 kiloliters. This demonstrates the fact the decrease rate has reached as much as 60% for the last 30 years.

The study area chosen above is no exception to this downward trend. There has happened a situation that a portion of harvested rice was not shipped notwithstanding “Muramai system”, the cause of which was the decrease of ordered quantity resulting from reorganization of “Nada gogo Sake Brewers association”. There happened another case that sales slump in Nada Sake stopped contracted brewers buying rice and that unpurchased rice was piled up in “JA” warehouse. What was worse, “JA” dared to sell out the dead “Yamada Nishiki” mixed with other type of stored rice at lower price to non-Nada breweries.

This transaction has given negative impact on rice farmers. Not knowing the whereabouts of rice they have grown or witnessing their rice decaying day after day is discouraging facts. Their quality control was at stake.

To cope with the adverse situation, rice farmers have decided to reorganize “Muramai system”. Their principle is “farmer first” Muramai system. Farmers started to select brewer partners who sympathize with them concerning Sake. They have willingly adopted “SMC” idea in dealing with Muramai reorganization. SMC helped them build an efficient network of working partners.

Consequently, it has brought both farmers & breweries several improvements of e.g. lead time control, warehouse efficiency, cost efficiency, supply stability, quality of rice & Sake. One example is as follows:

“Yamada Nishiki” is cropped once a year in autumn, Sake brewing starts in winter. The latent risk arising from this peculiarity can be reduced thanks to Muramai system. Breweries can instruct rice farmers on harvest period beforehand through the system and by close communications with farmers & villages can get prior knowledge of condition of harvest & rice, which enables breweries adjust a production plan before rice is carried in. In brief, by getting hold of the quality and quantity of rice before its harvest, breweries can maximize resources and efficiency in the whole process of Sake making with minimal loss.

“SCM” and “Muramai system” are both management methods aiming at integrating whole process of business from product planning, material procurement, production, shipment, marketing to after sales care. The goal of these is to secure stable management by acquiring accurate customers’ needs quantitatively along with concentrating on improving product quality.

It is highly likely that if intriguing Sake storytelling combines with ordinary learning tour program or with experience-based tour, it will become “signature tour” to foreign tourists to Japan. Naturally, it will promote regional revitalization remarkably.

Traditional Farmers as Leading Actors in Inbound Tourism

The total domestic shipment volume of Sake has been decreasing, while foreign shipment has increased in recent years. Sake has been exported to 62 countries as of 2015. 70% of total quantitative volume consists of US, Korea, Taiwan, Hong Kong, and China. The total sale proceeds of exported Sake showed ¥8.9 billion in 2012, ¥10.5 billion in 2013, ¥11.5 billion in 2014, and ¥14 billion in 2015 which increased 19.2% over the previous year. Government estimates that the amount will reach as much as ¥60 billion including processed products by 2020. Almost all Japanese Sake breweries have their long history of from about 100 to 880 years. Each brewery has maintained its customs & traditions to keep its quality level. Some of them have built memorial exhibition hall and a room where you can taste various sakes in their sites. You can even observe directly Sake making process. It should be noted that contemporary craftsmen with traditional skills not only confine their efforts to making excellent Sake but also welcome customers with giving them a chance of direct contacts with Sake making.

Originally, these rural oriented tours have been specifically planned for wealthy and regular tourists living in Korea, Taiwan, Hong Kong and Singapore. They like tours with real experiences e.g. golf playing, visits to traditional Sake breweries, eating local foods, experiences of Soba noodle making, and visits to pottery & porcelain villages.

CONCLUSION

The purpose of this study was to present a new tourism business model for attracting more foreign tourists to Japan through cross-sectors collaboration of primary, secondary and tertiary industry. This will realize “win-win-win” partnership between sectors concerned.

As exemplified above, rice farmers sell their rice proudly and steadily. Sake breweries buy high quality rice steadily and sell high value added Sake. Tourism industry gains high customers satisfaction. This triune industry sector collaboration is a recommendable “benchmark”.

As may be understood, it becomes the key to revitalization of local communities and “Japan” value will be increased. Needless to say, farmers play a pivotal role in this case.

In the next step, it is recommended that this “3-Win” strategy should be diffused all over Japan and that it should start to build a sophisticated system with quaternary sector (IT industry), because the latter would probably open a new sector of industry – fifth industry.

However, it should be pointed out that further investigation and case studies are needed to establish new “cross-sectors collaboration system” as a “pilot benchmark” which will be needed to cope with current rapidly changing highly networked society.

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Can Ethics Be Used as a Tool of Information Security Management?

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Abstract

The objectives of this study are twofold. The first is to find whether ethics related to information society are differently recognized from other business ethical issues and whether its influential factors are also different. The second is how sense of security, sense of ethics in information society, sense of knowledge-sharing, and online user participation relate to each other.

The authors found that the perception of information ethics is differently recognized from other ethics such as sexual discrimination, racial discrimination, price discrimination, bribery, harmful products, telecommunication, pollution issues, and intellectual property protection issues.

For this research, the authors used the protection motivation theory and built a model that shows the relationship between several ethical issues and knowledge sharing, security and participation in the virtual community. This was verified by a survey with 497 samples. We expect these findings will be helpful for future researchers and practitioners.

Key words: Ethics, Knowledge sharing, security, Protection Motivation Theory

I. Introduction

In this paper, the authors insist that information ethics and information security have a common goal. Ethics means different things to different people according to the situation, and there is a relationship among ethics, security, knowledge sharing, knowledge acceptance and online user participation. The Protection motivation theory (PMT), developed by Ross, was used to provide a theoretical background to demonstrate the relationship among knowledge sharing, ethics and security. In this paper, the authors will argue that: 1) ethics of different fields have different factors and therefore a level of ethics of agency (people or organizations) can be different depending on the categories, 2) the sense of security and sense of ethics in information society are related to each other, 3) security is related to knowledge acceptance while ethics are related to knowledge transfer. For this purpose, in section two, literature related to ethics, security and knowledge sharing was reviewed. In section three, the model and hypotheses are set up. In section four, the surveys are analyzed and the results discussed. In section five, a conclusion is made.

II. Literature review: relationship between security and ethics

When an individual is transferring their knowledge to another person, they are vulnerable to having their expertise and knowledge stolen. Therefore, many

individuals protect themselves and their information in different ways using different security measures. Some individuals protect their knowledge by using copyrights and patents to legally prevent others from laying claim to their ideas. Others are more concerned with the stealing of information en route to the recipient, so their information is encrypted to prevent others from stealing it. Companies emphasize security first when they are trying to transfer knowledge within the company from one area to another. Usually, policies are put in place so that employees do not have access to all company information. Only employees who need that information can access it, so that knowledge is kept on a "need to know" basis.

The emphasized use of security over ethics during the knowledge transfer process can lead to individuals making decisions that are overly on the offensive.

III. Research model and hypotheses

1. Protection Motivation Theory

The Protection Motivation Theory (PMT), developed by Rogers in 1975 and later revised by Rogers and Maddux in 1983, describes different ways that individuals cope with health threats. This theory can also be used to analyze why agents including companies and individuals make certain decisions about their security policies. The relationships among trust, security, and ethics in knowledge sharing can be explained based upon PMT.

In PMT, threat appraisal and coping appraisal are two key factors. Threat appraisal concerns the process of evaluating the components of a fear appeal that are relevant to an individual's perception of how threatened he or she feels. The PMT variables that capture threat appraisal are perceived vulnerability, perceived severity, and fear arousal. Perceived vulnerability assesses how personally susceptible an individual feels about the communicated threat. Perceived severity assesses how serious the individual believes that the threat would be to his or her own life. Fear arousal assesses how much fear the threat evokes for the individual. Fear is seen as an intervening variable; the more vulnerable an individual feels about a threat and the more serious he or she believes it to be, the more fear will be aroused and the greater the appraised threat will be. The greater the perceived threat, the more likely the individual is to be motivated to protect himself or herself; that is, the more likely a behavioral intention to adopt a protective behavior will be formed.

Coping appraisal evaluates the components of a fear appeal that are relevant to an individual's assessment of the recommended coping response to the appraised threat. The PMT includes self-efficacy and response costs in the

coping-appraisal component of the model. Self-efficacy concerns an individual's beliefs about whether he or she is able to perform the recommended coping response. Response costs regards the concern on how costly performing the recommended response will be to the individual.

2. Research Model

According to PMT, protection motivation consists of two coping mechanisms: adaptive and maladaptive. Adaptive coping can be considered an effort to maximize the positive utility of the activity or behavior. To evaluate adaptive coping, efficacy and response costs are considered. Efficacy is the activity where agents try to maximize positive utility and response cost is the cost that should be paid when agents try to maximize efficacy. In this model, agents try to maximize the obtainment of reputation, positive evaluation, self-satisfaction or fun by transferring information. This can be considered efficacy. Loss of knowledge or the possibility of knowledge loss when can be considered the response costs. Therefore, maximization of the difference between efficacy and response cost can be considered a coping appraisal. Maladaptive coping can be considered an effort to minimize negative utility. To evaluate maladaptive coping, in PMT, rewards and severity are considered. The reward is the pleasure obtained by the activity, while severity is the (possible) risk or danger of the activity. Therefore, the agents are willing to minimize the severity if the rewards are the same. In this model, agents try to minimize the risk of virus or security fear when agents maximize the utility of knowledge acquisition. Considering both adaptive and maladaptive cases, the agents would maximize the protection motivation by trying to reduce the response cost and severity. The question of this research is how to reduce the response cost and severity. The authors suggest two methods. The first is by using computer security technologies, and the second method is to appeal to ethics. Computer technology is a direct and forceful method but requires extra cost. While ethics are indirect, it has a wide application range and no extra cost is needed.

3. Hypotheses

Ethics can be used as a tool of protection for agents. Ethics (Ferrell p. 239) has provided a norm in many different areas such as sexual discrimination, racial discrimination, price discrimination, bribery, harmful product, pollution, telecommunication issue, intellectual property protection, and many others. If the premise, "ethics is a tool of protection" is true, the criteria of applying ethics to the above fields will be different. This is because the needs of protection will be different according to the subjects and, therefore, the level of standard of ethics will be different according to the subject. Therefore, the following hypothesis was set up.

H1) Agents apply the different level of standards of ethics according to the subject.

H2-1) The more agents are interested in knowledge absorption, the more they are active in online user participation.

H2-2) The more agents are interested in knowledge transfer, the more they are active in online user participation.

H3-1) The more agents want to absorb knowledge, the more they emphasize security to prevent the unwanted or false inflow of knowledge.

H3-2) The more agents want to absorb knowledge, the more they emphasize ethics to prevent the unwanted inflow of knowledge.

H4-1) The more agents want to transfer knowledge, the more they emphasize security to prevent the unwanted outflow of knowledge.

H4-2) The more agents want to transfer knowledge, the more they emphasize ethics to prevent the unwanted outflow of knowledge.

H5-1) The more agents emphasize security, the more they are active in online user participation.

H5-2) The more agents emphasize ethics, the more they are active in online user participation.

Findings and Discussion: Analysis of the structural equation model

From the primary data (n = 497), the SEM was examined to test the relationships between participation in the virtual community and knowledge sharing (absorption and transfer), security of information systems, and ethics of information society with seven moderating variables: age, income, experience, major (computer related or not), religion, gender, and education. The authors used AMOS 18 to analyze the proposed model and significant paths were found. As expected, sense of security, sense of ethics in information society, sense of knowledge sharing, and online user participation were related to each other. Additionally, seven moderating factors had a significant effect on some paths. Fig. 1 and 2 show the results of hypothesis testing.

<Figure 1 and 2>

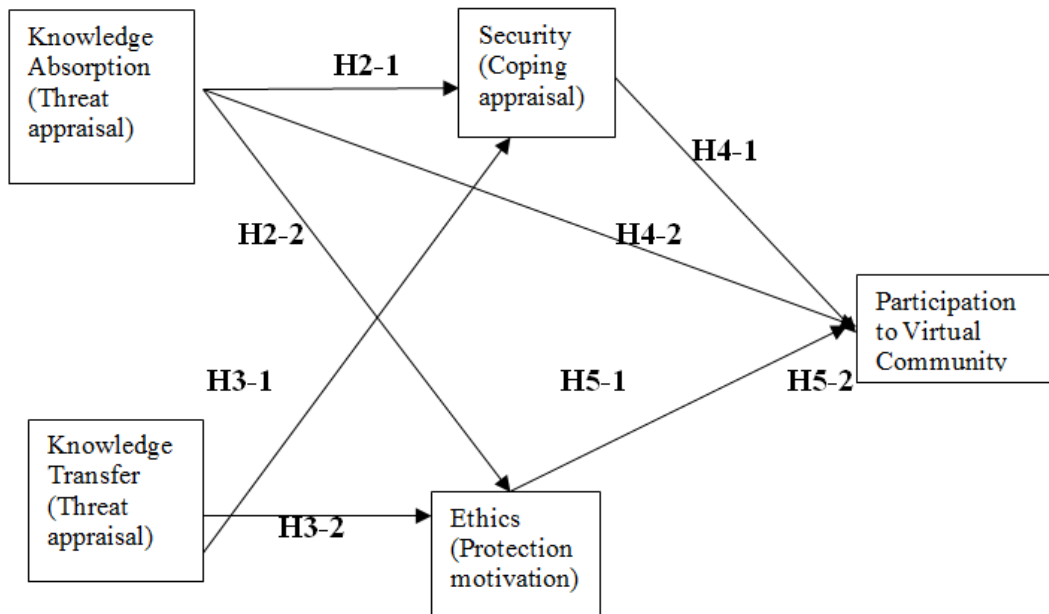
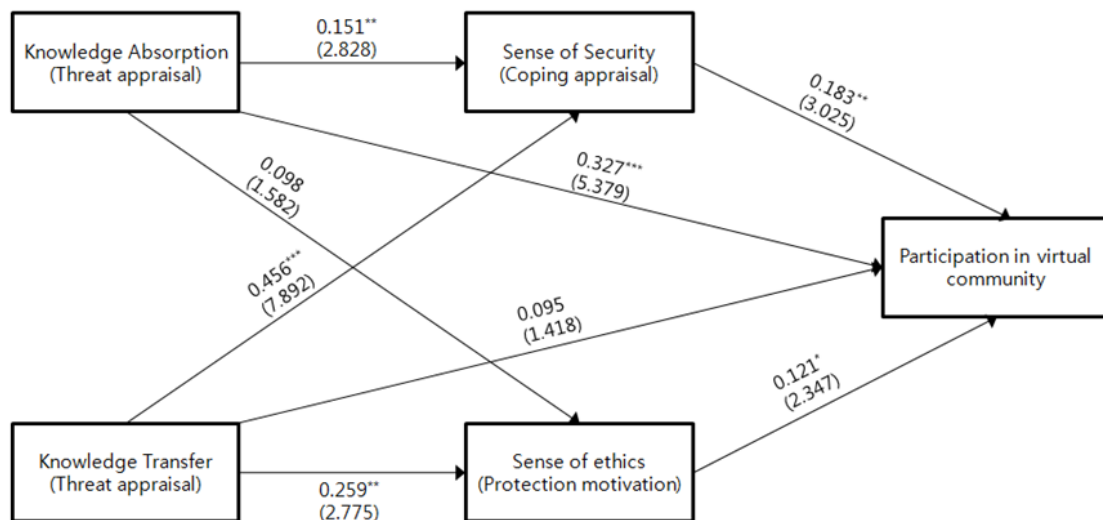


Figure 1.



*, p<0.05, **, p<0.01, ***, p<0.001

Figure 2. The results of the structural equation model

Knowledge sharing (knowledge absorption and knowledge transfer) was significantly related to sense of security ($\beta=0.151$, $p<0.01$; $\beta=0.456$, $p<0.001$ respectively). However, only knowledge transfer had a significant impact on sense of ethics. Moreover, Sense of security and sense of ethics had a significant impact on participation in virtual community ($\beta=0.183$, $p<0.01$; $\beta=0.121$, $p<0.05$ respectively). Finally, knowledge absorption had a direct significant impact on participation in the virtual community ($\beta=0.327$, $p<0.001$). Thus, H2 and H3 were supported. Additionally, H5, H6, H8, and H9 were also supported. But, H4 and H7 were not.

The authors also found a moderating effect on some structural paths using the Chi-square difference test ($\Delta\chi^2/\Delta d.f.$). There was the moderating effect on some structural paths according to age, gender, education, major (computer related or not), experience, income, and religion. Thus, H10 was partially supported.

Seven moderating variables (age, gender, education, major, experience, income, and religion) had a moderating effect on some structural paths.

4. Conclusions

In this paper, the authors found that security is used as a tool to protect agents' knowledge for knowledge transferors and absorbers both. Ethics is still used, but it is more weak.

The limit of this paper is that the data was obtained from South Korea. Each country has its unique culture and this

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Provided by request

Defensive reactions as potential reasons for IT project management failures

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ABSTRACT

The aim of this paper is to establish how much empirical research is conducted on defensive reasoning or defensive reactions as possible reasons for IT project failure. In order to address this objective a systematic literature review was conducted. Only a few articles were identified that made specific reference to barriers in organisational social structures that prevent organisational learning from taking place. It is argued that defensive mechanisms on an individual level and defensive reasoning on a team or organisational level play a major role in IT project failures mainly because it prevents people from learning from their or other's mistakes. In order for learning to take place, organisational defense routines should be minimised so that real reasons for project failure can be identified and addressed in an innovative and constructive manner.

INTRODUCTION

Applying the principles of sound project management is becoming key in the successful deliverance of IT projects. But not all IT projects are completed successfully, which also includes within timeframes and within budget limits. It has become an important research aim for IT project management scholars to establish why IT projects fail (compare [1], [2], [3]). Different approaches are followed and different models were developed to establish reasons for IT project failure. The aim of this systematic literature review is to establish what empirical research is conducted on defensive reasoning or defensive reactions as possible reasons for IT project failure. These findings may enable IT practitioners to establish models to manage reasons for project failure more systematically. The contribution of this study resides in the expansion of current models that explain reasons for IT project failures. The importance of the study can be ascribed to searching and exploring avenues that have not been explored before in the IT project management literature.

Theoretical orientation

Defense mechanisms. Defense mechanisms is a term that was initially introduced by [4], [5] and the concepts were later refined by [6]. Ego defense mechanisms are used on an individual level "to keep painful or socially undesirable thoughts and memories out of the conscious mind" [7]. Typical ego defense mechanisms may include denial (refuse to admit), projection (shifting blame) and rationalisation (distorting facts). Defense mechanisms such as these may be used by individual IT project team members to shift blame

or distort facts and consequently fail to learn from their mistakes.

Defensive reasoning. [8, p.10] introduced the concept organisational defenses and explained that "defensive reasoning occurs when individuals (1) hold premises the validity of which is questionable yet they think it is not, (2) make inferences that do not necessarily follow from the premises yet they think they do, and (3) reach conclusions that they believe they have tested carefully yet they have not, because the way they are framed makes them untestable". IT project teams may collectively engage in defensive reasoning in fabricating premises for explaining IT project failure.

'Failing to learn and learning to fail'. [9] in their paper explain how failure can be used to learn as well as to improve and innovate. They argue that it is unusual for organisations to learn from their mistakes, because barriers in the technical and social systems prevent that collective organisational learning can take place. According to them managers should first be taught to remove these barriers for organisational learning to take place. The next section provides an overview of literature in respect of IT project failure.

Literature review

Projects are the vehicle to implement corporate strategies and are therefore perceived as change agents [10], [11]. The purpose of IT projects should then also be to implement IT strategies which form part of the larger group of corporate strategies [12]. However, IT projects are notorious for their low success rates [13] [14], which raises the question whether they can actually be perceived as vehicles to implement IT strategies and the associated changes. The reality is that IT projects are wasting valuable resources such as money and human resources. In the current economic environment, corporates cannot afford to have projects that are not performing as they should.

Two questions spring to mind. The first question is: what are the current success rates of IT projects? Secondly, how is and should the success of IT projects be measured? Various studies on IT project success have been done and table 1 provides an overview of the results of these studies.

Table 1. IT project success rates [14]

Classi- fication	'11	'12	'13	'14	'15	Ave rage
Successful	29	27	31	28	29	28.8
Challenged	49	56	50	55	52	52.4
Failed	22	17	19	17	19	18.8

The results depicted in Table 1 paint a bleak picture, highlighting that on average almost a fifth of all IT projects are failing, with a third perceived as successful. The results from this longitudinal study also highlight that there has been no improvement or change over the last couple of years. This raises the question whether IT project success is actually measured correctly.

Historically, projects were measured based on the triple constraints, i.e. time, cost and scope. This measurement formed the basis of all project success evaluations and a slip in any one of these three constraints implied that that project was perceived as a failure. Research in the last decade or so challenges the triple constraint as the only way to measure project success, never mind IT project success. [15] as well as [13] investigated the phenomenon of project success and conclude that there has been a shift in the way that project success is measured. Project success is measured based on two aspects. The first aspect is to measure the success of project management itself. This measurement determines whether the final IT product or service was delivered within the constraints of the project. The constraints might still be the triple constraints but extended to include constraints such as quality; other constraints can also include security criteria or meeting the requirements of the product.

The second aspect determines the impact that the product or service has on the organisation. The ideal would be that the IT project actually contributes to the realisation of the IT strategies. IT projects are executed to realise some or other strategy and the ultimate success is when the IT project's deliverable realises the strategies. There should be a balance between project management success and product success. When cost expenditure and time delays have too much of a negative impact on the success of the product itself, then the project must be perceived as a failure. When the opposite is true, i.e. the product success outweighs the losses of project management, then the project should be perceived as successful.

Given the low success rates of IT projects, chief information officers (CIOs) should ask what factors contribute to project success and how these factors can be exploited to increase IT project success. Table 2 highlights two independent studies' results on factors that contribute to IT project success.

Table 2. Factors contributing to IT project success

Ranking	Prosperus Report [24]	Chaos Report [14]
1	Requirements definition clarity	Executive sponsorship
2	Communication between team and customers	Emotional maturity
3	Communication between project team members	User involvement
4	Business objectives clarity	Optimisation
5	Understanding of users' needs	Skilled resources
6	Project manager competency	Standard architecture

7	Executive support	Agile process
8	Handling of change	Modest execution
9	User involvement	PM expertise
10	Change control processes	Clear business objectives

It is clear from these studies that there is not really consensus on which factors contribute to IT project success. One factor highlighted by The Standish Group is the positive impact of agile processes on IT projects. According to their studies, agile projects are on average more than 28% successful than IT projects that follow the more traditional waterfall method. The failure rate is reduced by 20% if the agile method is used instead of the waterfall method.

One of the underlying principles of Agile is communication which has been identified as a factor that might improve project success. Communication in an Agile environment is achieved through a daily 15 minute stand-up meeting. The purpose of this meeting is to cover the following three questions: (i) What was accomplished since the last meeting, (ii) What are you working on until the next meeting and (iii) what are the things that are getting in your way from doing your job? One of the underlying principles is that there must be honesty and openness amongst the team members [16]. This is not always the case as some individuals might make use of defence strategies to cover some issues or mistakes [17].

RESEARCH DESIGN

Research approach

This paper was compiled by following a theoretical (non-empirical) approach proposed by [18]. More specifically, a systematic literature review was conducted with the aim to identify the current state of empirical research in respect of defensive reactions as reasons for IT project failure (See method sections of [19], [20] as examples of systematic literature reviews). Systematic literature reviews are inductive in nature and according to [18] Mouton (2001) an important criterion to assess the quality of the review.

Research Method

Location of the data

IT project management has become an important research topic in recent years [21]. More importantly, a host of research studies are reported on reasons why IT projects fail, but seemingly very few allude to defensive reactions as possible reasons. A systematic search process was first conducted by using Google followed by a search on the most important search portals such as EBSCO Host and from this portal several data bases were subsequently searched. These data bases were sufficient to identify the most recent empirical studies in terms of width and depth on the defensive reactions as reasons for IT project failure.

The search was mainly focused on research published between 2006 and 2016. Only a few 'ever-green' studies, completed prior to 2006, which still provide sound textual data for interpretation will be included.

Data gathering methods

Data (in this case textual data) was gathered using the said databases provided by the University of Johannesburg's library. The data was searched using the following key phrases: 'defensive reactions / routines as reasons for IT project failure'. Reference lists of articles were reviewed for additional publications that may not have been properly indexed and not found via electronic searches. Three selection criteria were used for selecting articles for this study: (1) they had to be written in English or a translated version had to be available; (2) the articles had to examine any of the constructs under investigation; and (3) the article had to either directly or indirectly address at least one of the research questions asked in this study.

Research procedure

A comprehensive and well integrated literature review is essential to any study (Mouton, 2001). Such a review provides a good understanding of issues and debates in the area of research, current theoretical thinking and definitions, as well as previous studies and their results.

This non-empirical (theoretical) research study was conducted in two phases. Phase 1 entailed the compilation of the searched literature on all the relevant constructs and Phase 2 included a systematic textual analysis of these listed articles in order to establish if any empirical research was conducted on defensive reasoning as a potential cause of IT project failure.

Data analysis

The relevant studies were selected after each search, using the sources and three criteria indicated above. The constructs identified in the study will be presented in table format in order to compare the findings of the different studies. The purpose is to create an overview of present literature on the constructs under investigation, and to identify the appropriate defensive routines as reported in the empirical research literature.

FINDINGS

The results of the database interrogation show no significant results. It is evident that these databases do not offer any current literature that covers the topic of defence mechanisms within IT projects. Only one article [22] touches on emotions as a factor that can contribute to project success. It does not do an in-depth analysis of the defence mechanisms to determine whether these play a role. It must also be noted that the notion of individual learning and organisational learning are not addressed in current literature focusing on IT project success. Lessons-learned is a process within all the project management standards but this process is not necessarily applied in IT projects [23] This implies that organisational learning does not take place.

DISCUSSION

The notion of IT project success and what it constitutes and even worse, what the root causes of IT project failures are, still do not yield a valid answer. Various research has tried to uncover the truth but there is still no clear answer. This study was an attempt to establish what empirical research was previously conducted on defensive reasoning as a root cause for IT project failure.

Focusing on this phenomenon high-lighted two aspects: the first aspect focuses on the technical side of IT projects and try to determine if best practices are applied, are there other ways of doing things or even not applying project management principles at all. The second aspect focuses more on the people-side and organisational (psycho-social) factors that may have an impact on individuals within the project team. Various human-related aspects have been researched including competencies, trust and motivation, but not defensive reasoning per se.

None of the research actually tried to uncover whether there is a deep underlying factor that cause IT projects to fail. This article highlights the fact individuals within a project team might resort to various defence mechanisms to shift the blame or fail to acknowledge real facts. This causes then that individual learning does not take place and it also does not escalate into organisational learning. The implication is that project teams are still not better off even after decades of research into IT project failure.

It is recommended that a broader and a phasic approach should be taken on proposed models for understanding IT project failures. The first phase entails the Planning Stage; the second the Execution Stage; and thirdly the Post-delivery Review Stage. A systematic reflection and analysis of how similar IT projects were planned, executed or reviewed and what mistakes were made during each stage, can shed light on 'things' that went wrong, but that team members or managers do not wish to acknowledge or take responsibility for. Creating a team climate or culture where team members 'feel safe' or are not threatened by direct or factual feedback can potentially reduce defensive reasoning around real causes of IT project failures and result in a constructive engagement with these factors.

There is a large void in the body of literature on IT project failures in this regard. Future research should consequently focus on in-depth analyses into IT teams to fathom how the various defence mechanism are used and whether different learning strategies will have a positive impact on IT project success.

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A Study on the IoT-based Fleet Maintenance Considering the Parts Reliability

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ABSTRACT

The Fleet is consist of many parts, and when a failure of a part occurs, the availability of the Fleet is decreased by limitation of the maintenance time. In order to increase the availability of Fleet, Fleet Maintenance is used to prevent the failures by allocating the necessary resources and scheduling activities for the maintenance of Fleet. Fleet Maintenance includes two major types of maintenance - periodic maintenance and preventive maintenance. Shorter maintenance cycles for high reliability and availability of Fleet increases costs. On the contrary, longer maintenance cycles reduces costs but decreases reliability and availability.

This study proposes an IoT-based Fleet Maintenance to reduce the maintenance cost of Fleet and to improve the availability considering the parts reliability by collecting and analyzing data of the parts from the IoT (Internet of Things).

Key words: IoT, Fleet Maintenance, Fleet Management

1. Introduction

The reduction of freight costs, which accounts for 1/3 to 2/3 of total logistics costs, can decrease total operating costs for the supply chain management (SCM) consisting of consumers, logistics companies, and suppliers [1]. In particular, domestic freight transportations are conducted by sea, railway, air, and highroad. Freight transportation by highroad is 90.6% of total domestic freight transportation that is increasing every year.

Many companies are adopting IT technology to reduce the freight cost of highroad transportation. Most freight is transported by highroad. Fleet maintenance is important to reduce transportation costs in highroad freight transportation using trucks. Fleet maintenance refers to the process of allocating and scheduling resources for repair activities such as repair, replacement, preventive maintenance, and sustaining of normal operation, as well as,

maintaining the quality of the system at a certain level or higher [2][3].

Thanks to the development of ICT, IoT technology, which enables communication between people and people, objects and objects, as well as, people and objects, is being applied to various industrial fields and real-time information is being produced.

IoT complements the limitations of RFID technology by equipping a communication module, which enables real-time network communication [4][5][6].

This study proposes an IoT-based Fleet Maintenance to reduce the maintenance cost of Fleet and to improve its usability considering the parts reliability based on IoT by collecting and analyzing parts data from the IoT.

2. The outline of mathematical model and assumptions

Figure 1 shows the entire system of fleet as a model consisting of a serial-parallel system. K ($K=1, \dots, 6$) refers parts of fleet. Each part has different failure probabilities, and the failure probability increases when fleet is available. Maintenance of each part is done by real-time monitoring if the reliability of part falls below a certain level. The cost of repairing each part is also different.

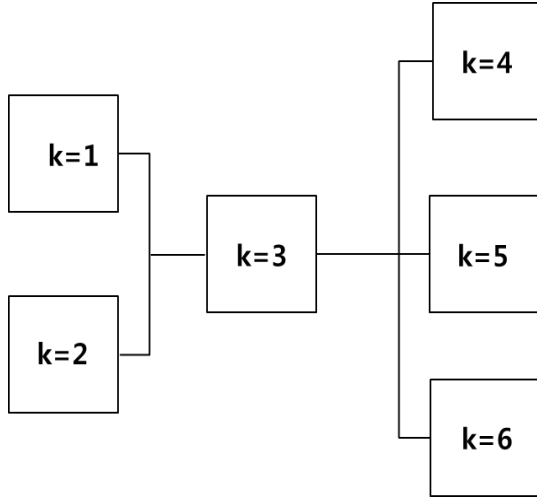


Figure 2 Fleet System Model

The basic mathematical model is shown in Eq. (1), and the objective function is the total cost of preventive maintenance. Equation (2) is the reliability function of the part, and the failure distribution follows the Weibull distribution.

$$C_{ip} = \sum_k C_{pk} + \sum_k (C_{rk} * E[N(t)] + \frac{RM - R(i)}{APP} * P) \quad (1)$$

$$R(i) = \exp\{-\lambda_s(t_i - t_s^i)\}^\alpha \quad (2)$$

C_{ip} = Total cost of general preventive maintenance at point i

C_{pk} = General preventive maintenance cost for part k

C_{rk} = General failure maintenance cost for part k

k = Parts of the entire system

$E[N(t)]$ = Average number of failures to occur at operating point t

RM = Target reliability of the system

APP = Allowable range for target reliability and current reliability difference

P = Penalty cost of system failure

i = Preventive maintenance point

t = System operating hours

s = System

λ = Part Failure Rate

3. Conclusion

This study proposed a mathematical model for reducing and improving the maintenance cost of fleet considering IoT-based part reliability. In future study, it is necessary to develop an algorithm for the proposed mathematical model and to review its

utility by comparing with the existing mathematical model.

Acknowledgements

This work was supported by the Ministry of Education of the Republic of Korea and the National Research Foundation of Korea (NRF-2015S1A5A2A03048940)

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Community Preventing and First Preventers: Completely Changing How Organizations and Communities Prevent

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ABSTRACT

Leaders from all areas of government, education, organizations, and communities have been talking about preventing violence and talking about changes for years, but in reality people are creatures of habit and rarely change until the pains get so bad they have to go from talking about changes to making changes in the response to a tragedy that could have been prevented.

Data reveals violence will not be stopped with more talk and more First Responders...Community Preventing and First Preventers who are trained and equipped to prevent is the answer and this paper will review the data further.

WHY IS COMMUNITY PREVENTING URGENTLY NEEDED?

Data from hundreds and hundreds of tragedies, incidents, lawsuits, and lessons learned [1] expose the truth about why preventing is failing at alarming rates in organizations and in communities:

- The “missing and most valuable pieces of the puzzle” for preventing are/were almost always observed by community members (family, friends, social media, etc.) But not shared with the right people (First Preventers)
- There are 6 Essential Steps to Preventing, however, the same dangerous gaps and disconnects exist in nearly every organization and community
- In most cases First Responders (FBI, Law Enforcement, Security, etc.) Were aware of the at-risk individuals, but First Responders are limited to responding to incidents/crimes... And are limited as First Preventers [1].

Post-event data from terrorist attacks on NYC, Orlando, San Bernardino, Boston, Paris, Brussels, 9-11 and numerous others expose the truth over and over how the FBI and other Law Enforcement personnel (First Responders) were aware of the “terrorist attackers,” and in some cases even interviewed them and placed them on terrorist watch lists...but First Responders were not aware of what community members knew [1]. Conventional First Responder approaches mean First Responders cannot do much of anything if no crime has been committed. Because of these and other failed strategies, the known “terrorists” were still able to

execute their acts of terrorism and kill thousands of innocent people.

49 Innocent People Killed and 53 Others Wounded in Orlando Massacre – the FBI interviewed the Orlando shooter multiple times, but did not know what the community knew including his ex-wife, ex-employees, social media users, friends, family, and others in the community. [2]

14 Innocent People Killed and 22 Others Seriously Injured in San Bernardino Attack – Family, friends, neighbors, and co-workers of the San Bernardino shooters were aware of and concerned about their behaviors, comments, and postings that were observed in person and on social media. [X – Brazil]

Nearly every post-event report and post-event analysis of terrorist attacks from around the world reveal the same dangerous gaps – Community Members (family, friends, co-workers, social media, etc.) Observed critically needed “pieces of the puzzle” BUT the “pieces of the puzzle” were not collected in a central, secure, community-wide platform where the “right people” (First Preventers) could assess them and connect the dots with Law Enforcement (federal, state, local, etc.) Who can connect the dots with other “silos” where even more “pieces of the puzzle” existed regarding the known at-risk individuals. [1]

DATA EXPOSES HUGE INITIAL RESPONSE COSTS AND LONG-TERM RESPONSE COSTS

San Bernardino – it has been well publicized the “initial response” in San Bernardino cost \$1.6M in First Responder overtime and other response related costs... And it has been well publicized that San Bernardino could not afford this large, unbudgeted “response costs” hit to their community’s budget. Based on initial lawsuits and data from other attacks, San Bernardino’s long-term costs will be much higher. [5]

Orlando – “initial response costs” released by Orlando city government are over \$1.7M for First Responder over- time and other related response costs, and based on initial lawsuits and data from other attacks, their long-term costs will be much higher. [2]

Virginia Tech – most calculations for the costs associated with the Virginia Tech Massacre are over \$48 Million... And sadly the post-event report data determined this tragedy was preventable. [3]

9-11 Attacks – most calculations for the costs associated with the 9-11 Attacks are over \$100 Billion... And the post-event report data determined this tragedy was preventable but government entities failed to connect the dots. [4]

Hundreds and Thousands of Lives – how do you put a cost on each of the hundreds and thousands of lives that have been lost and all the lives that have been ruined by hundreds of preventable attacks?

DATA FROM COMMUNITY INCIDENTS AND THE COMMUNITY PREVENTING CONNECTION

5 officers killed and 9 others injured in Dallas – the shooter displayed troubling and concerning behaviors in the Army including the discovery of unauthorized weapons in his quarters after he was put on 24-hour escort and moved to another base and finally discharged. On social media, he was connected to and “liked” multiple black nationalist groups that are recognized as hate groups. He joined one of them but was “asked to leave” for violating the organization’s “chain of command” and espousing dangerous rhetoric. The shooter also “liked” the Facebook page of another hate group encouraging violence against police and called for the murders of police officers across the U.S. The shooter’s family also observed troubling changes and concerning behaviors following his discharge from the Army. [6]

Data from the “Final Report and Findings of the Safe School Initiative” by the Secret Service found in over 80% of the school shootings, other people knew about the attack before it took place. The Final Report also found in over 90% of the school attacks, there was evidence of the attacker’s concerning behavior prior to the attack. [7]

The FBI released data showing the estimated number of murders rose nearly 11 percent between 2014 and 2015, the biggest increase in a quarter century and the increase in murders seems to be continuing in 2016. Per federal data, about 700 people are murdered each year on the job and workplace violence impacts about 2 million people each year. [8]

The latest U.S. Labor Department data shows nurses are attacked over 3 1/2 times the average national rate of occupational violence. Assaults against nursing assistants are occurring at more than 16 times the national average and psychiatric technicians/psychiatric aides suffer from violence at over 130 times that national average. [5]

Community Preventing is the most powerful, world-changing, and data-validated strategies and specialized tools to date for equipping and

empowering Community Members (employees, managers, students, faculty, staff, contractors, service providers, clients, patients, family, friends, neighbors, social media connections, non-profit organizations, religious organizations, health care, mental health, law enforcement, legal, compliance, threat assessment teams and others) to take proactive actions as soon as “pieces of the puzzle” (suspicious activities, concerning behaviors, social media leakage, and other pre-incident indicators) are “reported and collected” in a central, secure, specialized, community-wide prevention platform that immediately, automatically, and securely shares the “pieces of the puzzle” with the “right people” (First Preventers), in the right places, at the right time so they can “assess and connect the dots” and do the right things to intervene and prevent at-risk individuals from hurting themselves and/or committing acts of violence, acts of evil, and numerous other incidents and tragedies.

THE “RIGHT PEOPLE” (FIRST PREVENTERS)

Data repeatedly reveals conventional incident reporting is not enough and clearly not effective. [1] For example, Community Members are hesitant to report “pieces of the puzzle” directly to Law Enforcement (in person, by phone, online, etc.) due to fears of being interrogated, lack of privacy, lack of anonymity, lack of trust, retaliation, and numerous other concerns. Even though Law Enforcement would like to believe Community Members will proactively report “pieces of the puzzle” they observe, and even though almost everyone has heard of “See Something. Say Something”, the facts and data clearly reveal the reports are not occurring.

The “right people” are First Preventers. First Preventers are NOT First Responders. First Preventers are a multi-disciplinary, inter-agency, community-wide team of people who have received specialized training and are equipped with the “right strategies and the right tools” to achieve all 6 Essential Steps to Preventing.

First Preventers include Community Members, Community Resources, Threat Assessment Teams, Behavioral Intervention Teams, Mental Health, Social Workers and others who participate in identifying concerning behaviors and suspicious activities, intervention efforts, monitoring efforts, and preventing efforts.

99.9% of people prefer PREVENTING over Responding/Reacting, yet most communities and organizations invest 99.9% of their Safety and Security budget in First Responders, Reactive Drills, and security products for Responding/Reacting to attacks, liabilities, and tragedies.

Most communities and organizations will never have (and could never afford) more Security than the Fort Hood military base or Navy Yard military base – yet Fort Hood has had two preventable mass

shootings and Navy Yard had one preventable mass shooting because their Threat Assessment Teams did not know what Community Members knew and because they did not have the “right tools” for First Preventers to achieve all 6 Essential Steps to Preventing. [1]

How many more attacks, murders, unwanted budget hits, and tragedies must occur before Community leaders and Organizational leaders overcome this dangerous and costly addiction by deciding to make a change, getting help to make the right changes, and committing to the changes on an ongoing basis?

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Aggression and bullying attributes and consequences for the organisation and individuals in the workplace: A meta-synthesis of qualitative studies

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ABSTRACT

Aggression and bullying in the workplace is a very costly phenomenon. This phenomenon in the workplace causes insecurities that leads to high stress levels and frustration that has a negative effect on the organisation, individuals as well as social interactions and relationships. While there is an abundance of research on this phenomenon and concept, in a variety of research disciplines, this paper is a qualitative meta-synthesis on research conducted by different researchers between 2005 and 2016 on this phenomenon. The aim of this paper was to examine and interpret the attributes of the phenomenon aggression and bullying in the workplace, the consequences of the phenomenon in the workplace and to conduct a systematic review of this literature, synthesizing the perceptions on the phenomenon. Meta-synthesis methodology was implemented to review and draw together findings from eleven purposively sampled research articles. Also, the key concepts were extracted from, and central themes were generated from these findings. In this paper, the authors explore how qualitative meta-synthesis can be an applied and be an effective approach of inquiry in Human Resources to broaden the understanding of aggression and bullying in the workplace.

INTRODUCTION

The aim of this paper was to examine and interpret the literature, capture the qualitative perspectives and logically synthesise these perspectives, to enhance knowledge and broader insight in the phenomenon and concept of aggression and bullying in the workplace.

The objectives of the meta-synthesis were threefold namely to:

1. Conduct a systematic review, critically appraise and summarise research that examines aggression and bullying in the workplace.
2. Identify and interpret recurring and common attributes of aggression and bullying encountered in the workplace in the conducted studies.
3. Evaluate and interpret the potential consequences for the organisation and individuals of this phenomenon in the workplace. The findings could potentially contribute to refinements of this workplace challenge and directions for future studies.

Aggression and bullying are not new social phenomena and is embedded in social cultures and interpersonal relationships. Björkqvist (2001) posits aggression to be a universal problem. In addition, Venter, Poggenpoel and Myburgh (2005) argue aggression to be adopted in childhood and teenage years and exhibited in a variety of situations and interactions all through people's lives. Zapf and Gross (2001) furthermore argues that bullying contributes to severe social stress in the workplace. Research on aggression and bullying is widespread and in the last two decades studies on workplace aggression and bullying has increased significantly. However, although qualitative inquiry is applied widely within the fields of human and social sciences, education, nursing and psychology, business studies often rely on quantitative studies to measure human behaviour in the workplace. Meta-synthesis, applied in business, may contribute to a better and broader understanding of phenomena in the workplace that may contribute to more effective and significant organisational practices and solutions of the phenomena.

CONCEPT CLARIFICATION

Various and different concepts of workplace aggression were used in the sampled research studies. For clarity of the concepts aggression, bullying, workplace and workplace aggression and bullying, it is necessary to clarify, describe and determine these concepts for the purpose of this meta-synthesis.

Aggression is any form of adverse and damaging behaviour with the intention to deliberately harm or hurt another individual, it is specifically intended, and affects another individual's happiness, wellbeing or accomplishments. (Green, 1990; Berkowitz, 1993; Baron & Richardson, 1994). Aggression is characterised by strong self-interest with hurtful tendencies (Cherry, 2016). For this meta-synthesis the assumption is that; (1) aggression is a form of socially undesirable behaviour that impacts negatively on individuals, affecting their emotional and physical wellbeing; (2) aggression can take on a variety of different attributions; and (3) aggression can be verbal, non-verbal, non-physical and often very subtle.

Bullying is one of the different forms of aggression and is generally defined as behaviour that; (1) occurs over a period of time; (2) intend to hurt and

demoralise individuals; (3) is often characterised by power imbalance between involved parties; and (4) is purposeful (<http://en.wikipedia.org/wiki/bully>). Neuman and Baron (2005) also categorised bullying behaviours as aggression. Zapf and Gross (2001) in addition states that bullying indicates unresolved social conflicts and an imbalance in power. Therefore, in this meta-synthesis bullying is seen as a form of aggressive behaviour, abuse power or authority and destructive.

Workplace is defined as the physical environment where individuals work and is, except for an individual's home, one of the most important social environments where interpersonal interactions take place (<http://dictionary.cambridge.org/dictionary/english/workplace>). Thus, for this meta-synthesis the workplace is seen as a central concept that includes resources, human capital, social interactions, performance and job satisfaction.

Workplace aggression and bullying refer to individuals' counterproductive behaviour in the place of work that harms individuals, groups and the organisation (Fox & Spector, 2004). Workplace aggression and bullying, for the purpose of this paper refers to any counterproductive behaviour on any level with intend to abuse power, harm, hurt, demoralise and undermine individuals in the workplace. Moreover, this leading to costs, diminishing of productivity and well-being of individual and organisations.

DESIGN

A qualitative meta-synthesis was applied due to its careful and logical approach to analyse data across qualitative studies and its acknowledged efficacy for reviewing and combining qualitative literature findings. (Erwin, Brotherson & Summers, 2011; Smith, Fox & Trayner, 2015). Thus, qualitative meta-synthesis is the interpretation of findings of purposively selected qualitative studies.

METHOD

Meta-synthesis

This research explored qualitative studies on workplace aggression and bullying in a variety of study fields, including; education, business ethics, human resources and management. The research reported in this paper is a qualitative meta-syntheses. The qualitative meta-synthesis approach purposely and coherently examine data from a body of qualitative studies (Erwin, Brotherson & Summers, 2011). This approach implements an interpretive process to integrate and compare findings from existing qualitative studies to create significant meaning (Sandelowski & Barroso, 2007).

The outcome of meta-synthesis contributes to a shared understanding of specific phenomena and it is important that phenomena is understood in context and association. Eleven qualitative peer-reviewed and published research articles were purposively sampled and these research studies are implemented in the meta-synthesis in this paper. The phenomenon aggression and bullying in the

workplace is reviewed and synthesized in a global context and in a variety of career fields.

Literature Search and Selection Criteria

The selection criteria included peer-reviewed and publishes articles. According to Bondas and Hall (2007), ten to twelve purposively chosen articles have to be included in a meta-synthesis to create adequate meaning and validity. Ten articles were included in this meta-synthesis. Articles were searched based on the following search terms; (1) qualitative research; (2) workplace aggression; (3) workplace bullying; (4) aggression attributes; and (5) consequences of aggression. Articles' minimum inclusion criteria in this meta-synthesis were to:

- have a clearly defined qualitative methodology,
- address aggression and or bullying in the workplace,
- be written and published in English to be incorporated in the synthesis,
- be published in peer-reviewed journals to maintain scientific rigor, and
- be published between 2005 and 2016.

Quality Appraisal

All ten qualitative articles were examined for quality to consider their contribution to this meta-synthesis and uphold scientific rigour. Following the critical reading and consideration of the articles, quality of the studies were evaluated in terms of the clarity and rigour of the studies' research focus, methodological approach/inquiry, and description of critical findings with reference to the research checklist of Taylor, Reeves, Ewings, Binns, Keast and Mears (2000). Quality was considered throughout all articles and higher quality articles were included from which themes in the synthesis were obtained.

Data Extraction and Analysis

Data extraction was completed by the two independent review authors and included: (a) author(s) and date of publication; (b) country of origin; (c) research focus; (d) methodological approach/inquiry; and critical findings: aggression / bullying attributes and aggression / bullying consequences. Myburgh and Poggenpoel (2009) reason that synthesis is realised by upholding the central concepts of each study and evaluating them to other key concepts in the findings. Bondas and Hall (2007) in Myburgh and Poggenpoel (2009) argue that data correctness is achieved when the meta-synthesis findings can be applied into other contexts as well as reveal elements of real life experiences.

FINDINGS

This meta-synthesis highlights important knowledge and possible considerations associated with the phenomenon of aggression and bullying in the workplace. Aggression and bullying in the workplace is a global phenomenon and concern, seen through the research and evidence included in this meta-synthesis from various countries such as South Africa, USA, UK, Canada, Australia and Belgium. The findings of these studies corroborated aggression attributes, consequences and

implications for both the individuals and organisations affected by the phenomenon to be very similar. The literature highlighted that aggression and bullying in the workplace takes on many forms and further occurs on many levels within organisations.

“...take the form of overt physical or verbal assaults. Common types of overt behaviour are: constant criticism, shouting and verbal abuse, and persistent picking on a victim” (Harthill, 2008).

“... can also take on more subtle forms, such as removing responsibilities and replacing them with trivial tasks, withholding information, and blocking promotions” (Harthill, 2008).

“The majority of research has focused on downwards bullying (as perpetrated by managers against subordinates); to a lesser extent on horizontal bullying (one colleague bullying another); and more recently on upwards bullying (a subordinate bullying a person in a managerial position). Thus, bullying can occur within all levels of an organisation” (Branch, Ramsey & Barker, 2012).

Through the meta-synthesis method, four themes developed from the literature:

1. Work related attributes of the phenomenon.
2. Negative perceptions of organisational culture and management.
3. Individual identity and consequences for the organisation and individuals.
4. Cost implications: individuals, organisations, society.

First, in the findings it became evident that work related aggression and bullying attributes underpinned much of the studies. It emerged from the literature that these type of workplace aggression and bullying included work overload, unrealistic and unreasonable targets and deadlines, or lowering of work responsibilities (Vega & Comer, 2005; Harthill, 2008; Matthiesen & Einarsen, 2010; Bartlett & Bartlett, 2011; Baillien, Neyens & De Witt, 2013; Van der Merwe, Myburgh & Poggenpoel, 2015). Additionally, the literature reported bullying to include interpersonal pressure, exclusion and withholding of information, verbal and non-verbal abuse (Vega & Comer, 2005; Bimenyimana, Poggenpoel, Myburgh & van Niekerk, 2006; Matthiesen & Einarsen, 2010; Bartlett & Bartlett, 2011; Samnani, Singh & Ezzedeen, 2013; Ousey, Warelow, Steve & Steve, 2014; Van der Merwe, Myburgh & Poggenpoel, 2015).

Second, the literature further indicated negative perceptions of organisational culture and management relating to the attributions of aggression and bullying in the workplace. Of concern is the demeaning of individuals in the workplace related to positional power and authority. Evidence in the literature included; the blocking of

promotions, undermining, non- or limited communication and aggressive management styles (Vega & Comer, 2005; Matthiesen & Einarsen, 2010; Bartlett & Bartlett, 2011; Cowen, 2013; Baillien, Neyens & De Witt, 2013; Samnani, Singh & Ezzedeen, 2013). Moreover, Samnani, Singh and Ezzedeen (2013) posits targets to experience the organisation as the bully and the felt that the organisational culture was the motivation for aggression.

Third, considering the consequences of aggression and bullying in the workplace, literature revealed individual identity and consequences for the organisation and individuals. Since aggression and bullying in the workplace are often covert and subtle, it involves important challenges for individual (Samnani, Singh & Ezzedeen, 2013). The consequences of the phenomenon directly impacts individuals' identity through the loss of confidence and decrease in self-worth (Vega & Comer, 2005; Matthiesen & Einarsen, 2010; Bartlett & Bartlett, 2011; Ousey, Warelow, Steve & Steve, 2014). The perception of inferiority then links directly to uncertainty, hopelessness and helplessness leading to crumbling relationships, poor performance and withdrawal (Bimenyimana, Poggenpoel, Myburgh & van Niekerk, 2006; Matthiesen & Einarsen, 2010; Bartlett & Bartlett, 2011; Ramsay & Barker, 2012; Baillien, Neyens & De Witt, 2013; Van der Merwe, Myburgh & Poggenpoel, 2015). Further highlighted in the literature is that the experience of loss of self-worth, job satisfaction, stress and frustration often impacts individuals' physical and/or mental well-being (Vega & Comer, 2005; Bartlett & Bartlett, 2011; Van der Merwe, Myburgh & Poggenpoel, 2015). Similarly, the phenomenon entail serious consequences for organisations. On the one hand, organisations will have demoralized employers, deterioration of workplace relationships causing an unhealthy and toxic organizational culture and environment (Vega & Comer, 2005; Samnani, Singh and Ezzedeen, 2013). On the other hand frustrated and overwhelmed employees causes high turnover, resignations and loss in qualified personnel (Vega & Comer, 2005; Harthill, 2008; Cowen, 2013).

Fourth, in light of theme one, two and three, cost implications for individuals, organisations and society were presented. Cost implications directly linked to individuals include the possible loss of income due to resignation and cutting back at work hours. Also, higher medical expenses due to increased physical and mental health issues. Lastly, in worst-case scenarios, legal expenses due to divorce and court cases for unfair dismissal and performance evaluations (Vega & Comer, 2005; Harthill, 2008; Bartlett & Bartlett, 2011; Ramsay & barker, 2012; Cowen, 2013; Ousey, Warelow, Steve & Steve, 2014). Secondly, focusing on the consequences of aggression and bullying in the workplace on organisations, the biggest factors were the loss of productivity, extra training, legal costs, absenteeism and the loss of highly qualified employees (Vega & Comer, 2005; Matthiesen & Einarsen, 2010; Bartlett & Bartlett, 2011; Harthill,

2008; Ramsay & barker, 2012; Cowen, 2013; Samnani, Singh & Ezzedeen, 2013; Ousey, Warelow, Steve & Steve, 2014). In conclusion, focusing on the cost implications of the phenomenon on society, it can be significant. All of the above discussed consequences have direct social and economic implications because of job losses, physical and mental health demands, deteriorated interpersonal skills and relationships (Vega & Comer, 2005; Harthill, 2008; Matthiesen & Einarsen, 2010; Bartlett & Bartlett, 2011; Ramsay & Barker, 2012; Cowen, 2013; Samnani, Singh & Ezzedee, 2013).

LIMITATIONS OF THE META-SYNTHESIS AND SUGGESTIONS FOR FURTHER STUDIES

The meta-synthesis produced an inclusive and global perspective on aggression and bullying attributes and consequences in the workplace, but due to time constraints only a selection of available literature and resources were searched for evidence. Future research should include a wider variety of resources and also consider continental and specific career fields. Although many studies on aggression and bullying in the workplace exist, more studies on a broader and in-depth understanding of the phenomenon may significantly contribute towards HR practices, policies and government bills. Qualitative meta-synthesis contributions may further distinguish or inform questionnaires and models for quantitative studies.

CONCLUSION

The ongoing debate and research on aggression and bullying in the workplace encouraged this meta-synthesis to discover a broader understanding of the reality of this phenomenon and problem. The literature search yielded ample literature of which much were quantitative as well, but 10 qualitative studies were identified suitable for inclusion in this meta-synthesis. The systematic review and meta-synthesis identified four key themes on specific attributes and consequences of aggression and bullying in the workplace. Clarification of the consistency between the literatures synthesized was evaluated during the meta-synthesis. Despite many scholarly and popular media reports on aggression, bullying, violence and harassment in the workplace, it is reasonable to wonder how the contribution of all this assimilated knowledge benefit real life. While, government bills, policies and procedures, HR practices and intervention strategies address this phenomenon, the proper change and implementation of the above mentioned has to come from within each organisation. It is time that organisations take ownership and address aggression and bullying in the workplace not just on paper but also in action.

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The full list of references is available upon request

The Role of Factory Facilities on Safety Risk Management in the Working Conditions in Sewing Co-operatives

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ABSTRACT

Industrial factory facilities for small manufacturing enterprises such as sewing cooperatives are of scarcity in South Africa. In this study 83 sewing cooperatives in Gauteng province participated and these cooperatives rely on space consuming processes to deliver their output. All these cooperatives are contracted to supply school learners' uniforms to the Gauteng Department of Social Development. An identified problem is that these cooperatives work from facilities which present risks and hazards to their workers on daily basis and they also do not have basic first aid kits and some facilities have unsatisfactory exit points. Inspection, close monitoring and risk management advisory for manufacturing cooperatives should be among the key focus areas for labour inspectors in South Africa and also for funders need to consider safety risk management issues as part of their criteria.

Keywords – Working conditions, risk, factory facilities

I. INTRODUCTION

Cooperatives are types of enterprises found in all of the continents of the world and the importance of research about their operations cannot be underestimated. The United Nations General Secretary 70th Report [1] on cooperatives defines cooperatives as autonomous associations of persons united voluntarily to meet their common economic social and cultural needs and aspirations through a jointly owned and democratically controlled enterprises. Cooperatives create employment for about 250 million individuals in the world directly and indirectly [2]. In Kenya 63% of the population derive their income and living from cooperatives [4]. Cooperatives are forms of businesses which are based in communities and which are guided by the specific objectives and collective goals of the members. Cooperatives produce goods and services like all other different forms of enterprises [4]. There are three types of cooperatives, which could be a primary, secondary or a tertiary cooperative. A primary cooperative is formed by a minimum of five members who should be natural person, a secondary cooperative the aim is to provide sectoral services and the tertiary cooperative advocates and engages members of state and private sector on behalf of its members [5]. The involvement of

women in cooperatives is much greater compared to the involvement of men [25]. Cooperatives have similar challenges as many other enterprises which include lack of infrastructure and financial resources [26]. In South Africa 22% of 1247 textiles cooperatives are still in business and 78% have ceased to exist owing to the challenges encountered by manufacturing cooperatives [27]. However these cooperatives depend on various means to deliver their output, some operate from the homes of key members, others in redundant properties and those cooperatives which afford rent they operate from designated industrial properties [28]. Production facilities infrastructure for cooperatives' business operations in the less developed countries remains a concern and this has led to a lack of interest among researchers to do work on cooperatives particularly on their operations' processes [1]. There is limited information on how do cooperatives ensure that risk related to their operations is prevented and mitigated [6]. Also bigger cooperatives such as SUMA [7] have the means to exercise and implement safe working conditions as opposed to smaller cooperatives. When working in confined spaces which most cooperatives find themselves working in safety measures should be in place and has to be evaluated by a person competent to pronounce its safety [8]. Furthermore a cooperative as an employer of its members should provide and maintain as far as is reasonably practicable, a working environment that is safe and is without risk to the health of employees [9]. All enterprises have the duty to ensure safety of humans involved in their work. Although work has been done by ILO (International Labour Organisation) to ensure improvement and compliance of factories around the world to better working conditions and safer environment, in some small enterprises the health of and safety of workers is still compromised and in some factories in India, Vietnam, Bangladesh and Cambodia this is still an unresolved problem [29]. This paper seeks to present the need for consideration of risk management on working conditions particularly in sewing cooperatives. The research problem can be stated as the lack of adequate factory facilities leading to poor working conditions in sewing cooperatives. The objective of this study as already indicated is to propose a model of managing risks relating to working conditions in sewing cooperatives based on a study of 83 sewing

cooperatives in the Gauteng province of South Africa.

The remainder of this paper consists of a literature review which represents a conceptual framework of this study, a research method is presented, findings and the implications of this study on engineering management are included in the recommendations, future research proposal and suggestions are added in the conclusion.

II. LITERATURE REVIEW

One of the approaches used to select production or store facility location is the Analytical Hierarchy Process which is comparable to MOCMD (Multiple Objective Criteria Decision Making), these require the assessment of the physical condition of the facilities when a decision regarding the production facility location is to be made [10]. Facility related risks can be identified in advance and in this paper, risk management is defined as preventing accident happening [11]. Working conditions in production sewing cooperatives require proper risk management to enhance operational efficiency and create a safe working environment [12]. The management of risk can be done more effectively when the production processes are well defined and proper risk assessment has been done [13]. There are methods to assess risk, a more accessible method is the Failure Mode and Effects Analysis (FMEA). According to archeologists the history of sewing started 25 000 years ago during the last ice age [14]. Over the years, the demand for fashionable clothing, corporate wear and other garments inspired mass sewing operations which happened to be labour intensive. The global supply chains rely on labour efficiency, cost effective and outsourced production of garments which has also raised an interest from organized labour movements to be involved, which argue that besides the use of code of conducts in mitigation of risky factory working conditions there has to be engagement of workers about their working conditions [15]. Most workers in the garment sector tend to be females, mostly working from home based operations which are less formal and prevent organized labour associations from being involved [16]. The revitalization of textile industries by UK, African countries and others, after its significant decline has to place upfront the betterment of working conditions [17] to ensure that they do not make similar mistakes such as those of the Cambodian garment industry [17]. Safe and decent working conditions are important for the sustainability of operational performance and production efficiency in the global economy [18]. Hazardous working conditions, poor wages, excessive working hours and even child labour signals unsafe working conditions [8]. The most production intensive small garment and textile factories are either contracted or subcontracted to projects of bigger corporations which do not see themselves as having the responsibility to oversee and assess the working conditions of the factories contracted or subcontracted to them [19]. In a case of workers migrating from rural areas to city environments, they also find themselves vulnerable

to working under poor factory conditions due to desperation for employment and as a result of their lacking understanding of labour rights [20]. Cooperatives are autonomous associations established by workers or a community of people, set up to generate income, but also to address socio-economic problems, it may be challenging to ensure decent and risk-free working conditions through external regulations where government also has limited budgets to employ a substantial amount of inspectors and safety officers.

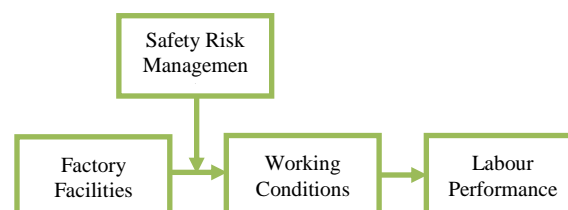


Figure 3 Theoretical Framework

The above proposed conceptual framework seeks to suggest an alternative way of managing risks associated with working conditions in factories. Although cooperatives' members have a mutual understanding, they still need to account for safety risk management in their working conditions, to avoid employee or worker mortality [21]. The suggested model is supported by literature from various fields which include operations management, industrial design and psychology. Factory facilities play an important role in ensuring safe working conditions, they also create an environment under which safety precautions can be implemented and exercised which then can improve the working conditions [40]. Labour performance is associated with the feeling of being safe and protected from any work related dangers or risks especially in production facilities where work is repetitive [41]. Safety risk management in a production co-operative is essential given that co-operatives are enterprises which should aim to improve livelihoods of those who work in them and protect their workers or members from any form of exploitation [42]. Safety risk management in repetitive sewing work requires that a co-operative's management takes into consideration the (1) condition of sewing factory facilities (2) basic first aid (3) ergonomics issues of machine operators (4) workers' safety awareness and (5) precautionary risk management in all working conditions [41][42]. There are also work pressures which are common in Privately Owned Factories which lead to compromise in managing safety related risks, in case of target driven sewing factories employees are less concerned about the working conditions and risk management systems, but more concerned about the amount of items they are able to make and the money they would be paid per [43]. Co-operatives in manufacturing, such as in sewing should treasure their human capital for better performance by ensuring that the factory facilities allow for safety risk management execution in order to create better working conditions and increase performance of machine operators and the workers involved in other processes of a sewing co-operative

[44]. The following hypotheses are supported by the above literature descriptions of the suggested model and in future studies an empirical study could be done to test the model suggested on this paper.

H₁ Factory facilities determine the kind of Safety Risk Management practices of a manufacturer

H₂ Factory facilities' Safety Risk Management improves working conditions.

H₃ Improved safe working conditions lead to productive labour performance.

H₄ Manufacturing co-operatives' labour performance depends on the working conditions.

The above hypotheses also identifies the uniqueness of co-operative manufacturers which also promote the idea of ethical manufacturing, taking care of the weak and ensuring socio-economic development and the co-operative movement has also taught private enterprises lessons on taking care of their human capital before profits and consumer co-operatives in the United States of America and in developed countries have stood up against buying products made through child and forced labour [45]. The following section is the research methodology section which presents the procedure followed to extract data relevant to this research.

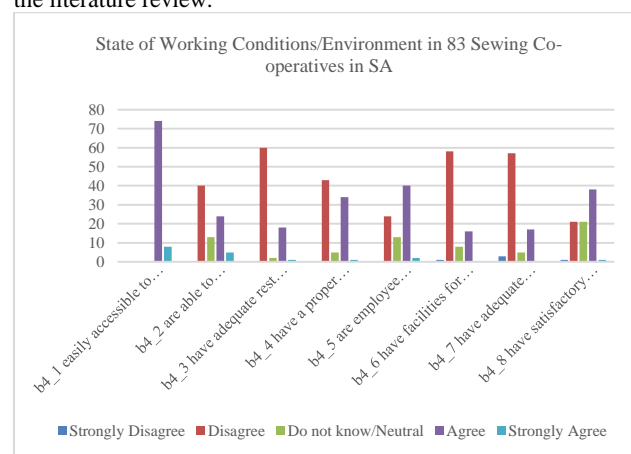
III. METHODOLOGY

The results were extracted from a research data based on a census of 83 funded sewing cooperatives, which addressed a problem relating to facilities. Part of the set of constructs was on employment, addressing facility working conditions. This paper refers to the working conditions part of the data. The facilities ownership and property type on the questionnaire provide clarity about the nature of the infrastructure that the sewing cooperatives have access to. The sample was determined from the records of a government department which contracted 83 of the co-operatives to provide the department with school uniforms for learners or scholars in need. Measures such as self-administration of questionnaires and verification of data collected were implemented to ensure the completeness of the questionnaires [46]. This research study obtained an ethical clearance from the contractor of the sewing co-operatives which is a government department and for a similar study to be conducted elsewhere it may be important to obtain permission or a clearance to collect data and engage the population concerned. The records of the respondents as provided by the contractor were validated and the contact information provided to ensure that the correct respondents are reached. The data covers for regions of the Gauteng Province in South Africa. Gauteng province is South Africa's economic hub and is more industrialized compared to other provinces, which made it more relevant to make use of this data. The questionnaires were self-administered and analysis done through SPSS 22 [32]. The section that follows presents the relevant findings.

IV. RESULTS

The findings has some key information which is shared here, of the 83 sewing cooperatives 3 of

them operate from properties owned by their cooperatives. However, a large number of other cooperatives lease business property and 34 of the cooperatives rely on Home Based Business Operations. These cooperatives are based in townships and risk management is also influenced by internal factors and external factors. Facilities have an impact on risk management as those cooperatives working from Home Based Operations and other facility types. Section 4 of the research instrument gathered employment conditions information which encompasses risk management issues [22] and the section helps in attempting to answer the research question posed here. Out of the 83 cooperatives, 74 have easily accessible facilities and 34 have proper canteens as well as 18 have adequate rest facilities. On risk issues, it was found that 57 of the cooperatives did not have adequate basic medical facilities such as first aid kits and this posed as serious risk, possibilities of fire were not also understood by the cooperatives and less than half of the cooperatives had adequate exit point in their facilities, these findings are unpacked here with an aid of a graph. The labour law of South Africa is known to be rigid and protecting employees from any unfair treatment, pay and also any form of exploitation. The Occupational Health and Safety Act of South Africa also prescribes that safety uniforms and features are compulsory especially in manufacturing oriented activities (OHSA) and this is applicable to all size enterprises. These results here focus on Employment Conditions which the members of the sewing cooperatives work under, these include (1) accessibility of the factory facilities, (2) availability of adequate rest facilities, (3), adequate medical facilities (4) satisfactory emergency exit points (5) have facilities which support physically challenged persons and (6) ability of facilities to accommodate additional workers without major infrastructural changes. The following graph shows the findings of the study and substantiate the relevance of the model suggested in the literature review.



The above graph presents the current state of working conditions in the total of 83 sewing co-operatives. The findings gather that over 70 of the co-operatives are easily accessible to employees and to the public, which means also to emergency services in cases of fire or other emergencies. This also shows that the municipal town planning has

played a role in creating accessibility. However, the facilities in which the co-operatives are working from are unable to accommodate additional workforce in times of need or when there a big sewing projects, meaning that they unsafely accommodate additional workers in the interest of delivering on their orders and about 60 co-operatives do not have adequate rest facilities only 18 co-operatives have access to such, this immediately pose a health threat to the workers of a co-operative in terms of ergonomics and musculoskeletal health problems associated with not taking adequate rests (Habib, 2015). The adequate rest facilities are also associated with having access to a canteen space which is a space perfect for having a meal and eating from a factory floor also increases chances of eating food contaminated by fabric dust or particles, from this study it is also evident that there aren't many of the sewing co-operatives with proper canteen facilities as 43 co-operatives disagree having a canteen or kitchen facility. Another item inquired about the employee-friendliness of the facilities, this refers to the facilities support of a healthy lifestyle in form of resources and furniture available and this may reflect that employees are now used to the challenging working conditions and 40 co-operatives agree that their facilities are employee friendly, besides the fact that 60 of them stated that they did not have adequate rest facilities. Although the co-operatives movement has a responsibility to lookout for the weak in society such as the disabled, the sewing co-operatives in this study did not make any provision to accommodate the disabled members or workers, only 16 co-operatives do have adequate facilities to host a physically challenged person and those facilities also extend to others who are not disabled as they feature safety measures and creation of more exit points, benefiting the co-operative indirectly. The major concern is that co-operatives referred to on this research do not have basic adequate medical facilities such as the first aid, this a total of 57 co-operatives and employing at minimum 10 people. Ensuring adequate access to first aid health is essential in sewing activities and to maintain a space which promotes safety. Finally, the last question referred to safety in terms of the availability of satisfactory emergency exit points, a total of 38 co-operatives agreed that they had adequate exit points for cases of emergency, but an equal number of 20 co-operative disagreed and also the other 20 was neutral on whether they had adequate exit points in case of emergency. The section that follows discusses this findings in line with the model proposed in the literature review.

V. DISCUSSION

The size of the sample is relatively small to make a general statement. However, the lack of adequate industrial facilities with safety features necessary for any-size manufacturing enterprise is of importance to operations engineering practitioners and the sellers of sewing machineries [23]. Due to high reliance of sewing operations on human intervention, adherence to labour standards is, non-negotiable. It is recommended that

engineering safety practices be enforced through labour inspection. In conclusion, we recognize that sewing cooperatives around the world have impact positively on the livelihoods of many societies and particularly on women by helping them to earn income to provide for their families [24]. Even if so, if the safety risk in relation to working conditions is not well managed or mitigated procedurally, it may cause loss of lives [30]. Industrial wear should be provided and be worn and other safety precautions should be adhered to without compromise, on daily basis [31]. Future research may work with a larger sample size and investigate the impact of safety manuals on worker owned manufacturing cooperatives.

VI. CONCLUSION

Industrial hygiene is a non-negotiable pre-requisite towards ensuring safe working conditions [31]. Refraining from non-compliance with labour legislation [33] and illegal power connections may prevent loss and accidents happening [34]. Engineering management, is arguably not a special kind of management, but a form of management directed to operations management and engineered solutions, therefore managers rely on people to get work done and it is equally important to ensure that there are safe working conditions regardless of the size of business [35]. Updated and recent engineering manuals on safety in small clothing manufacturing firms may come handy in this decade of great emergence of manufacturing cooperatives and may also be useful to building worker confidence of demanding safe and hazard-free working conditions [36]. Large corporations embrace safe working conditions given the benefits of an accident-free work place. Fire can break-out and if the facilities do not have clear exits staff members can burn or get hurt and during a natural disaster such as flooding workers need to know the evacuation procedure from the production facility. Moreover, a production facility should be physically strong to withstand any major natural disasters such as hurricanes [37] and finally, working in cooperatives should not compromise safety, health and protection of the cooperatives' members and workers. Manufacturing cooperatives should rather be attractive enterprises to work for given the social and economic benefits associated with cooperatives [38]. Safety engineers and town planners can play an important role in supporting the aims of developing facilities for small manufacturing cooperatives such as the sewing cooperatives [39].

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A Manager's personal value system and the influence it has on Organisational Ethics

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ABSTRACT

To investigate the impact managers have on business ethics through their own personal value systems. Literature pertaining to personal values, corporate values as well as business ethics. Due to the study of human behaviour an interpretivist paradigm was chosen. The nature of the problem is to understand the relationship between the various value systems, incorporating governance structures as well as ethical behaviour and the relative effect these have on human nature within the business environment. .

Key words: Personal values, impact on ethics, managers

INTRODUCTION

Giddy (2015), argues that ethics is a late joiner and prior to 1970 ethics were not considered as part of the organisational responsibility. The consideration was given more to social values and the reputation of the organisation. Rather, companies saw the responsibility of behaving in a moral way stemming from the individual as opposed to the organisation .

Various scandals have seen the light, such as the \$12 million Lockheed bribery case in America – where the chairman of Lockheed facilitated payments to representatives of the Japanese prime minister in order to facilitate the sale of aircraft (Grace, 2002). Based on literature available, inference can be made that ethics cannot be viewed in isolation and that personal value systems impact behaviour (Catacutan, 2013). Consideration also needs to be given that each individual prescribes to a different set of value systems, a notion which would subsequently impact not only their behaviour but also their response to various scenarios (Finegan, 1994; Brumette & Zoch, 2016).

LITERATURE OVERVIEW

Ethics: Paliwal, (2006:3) states that ethics “*is a mass of moral principles or set of values about what is right or wrong, true or false, fair or unfair, proper or improper what is right is ethical and what is wrong is unethical.*” Business ethics is prescribing to moral values that would be right and fair not just to the organisation but to the society at large.

Individual value systems: Rockeach (2008:17) states that, “*values are simultaneously components of psychological processes, of social interaction, and of cultural patterning and storage.*” He then further argues that people react differently to situations not because of the lack of certain values but rather due to how these components, that create values, are ranked and utilised by the individual and that this is also true for societies and ultimately organisations.

Personal ethics are those taught to an individual from a young age. As people grow up parents, teachers and mentors teach us to yearn for what is right, fair and equitable (Catacutan, 2013). These ethics are engrained into our psyche and are called upon when making business decisions. The most conflicted managers will be the middle managers as they are the ones trying to resolve the profit motive with the very real and pressing business needs (Hanson, 2008).

To understand ethics clarity is needed with regards to the link between a value system and how this impacts ethical behaviour, as well as the drivers within an individual which affect the way the individual responds to any ethical dilemmas.

Corporate value system: The Corporate value system is only as strong as the executives that make the decisions as they will ultimately need a strong personal value system to ensure that the decisions they make on behalf of the organisation are ethical (Gosenpud & Werner, 2015; Jones, 2015). Corporate value systems are therefore enforced from the top down and the values of the organisation therefore need to be displayed from executive level down to the employees. Situations are impacted by how individuals perceive the situation based on their individual value system (Gosenpud & Werner, 2015).

Individuals will therefore act upon a certain situation based on that value system, which will hold true for ethical decisions as well. This implies that ethical behaviour is likely depend ent on values and a value system (Rockeach, 2008; Jones, 2015; Gosenpud & Werner, 2015). Abyad (2014) expands on this concept by pitting personal drivers such as conscience, natural law and innate moral theory

against external drivers such as theological ethics, legal ethics and contractual ethics in order to analyse how businesses behave in the free market.

Corporate governance structures: There is a global trend to increase country-level governance as a result of the financial crisis in 2008, various business scandals and globalisation (Schiehl, Ahmadjian & Filatotchev, 2014; Vorster & Marais, 2014). Corporate governance structures allow for various industries to play by the same set of rules where all players understand the boundaries within which they can operate in that industry (Schiehl *et al.*, 2014). Development of compliance programs in organisations is critical in avoiding more global ethical problems (Weber & Wasieleski, 2013). The spin off from increased governance, is that companies have to comply with certain standards and behave in a certain manner.

PURPOSE OF THE STUDY

It can be deduced from literature that ethics in an organisation can be influenced by several variables such as the organisational values, personal values of employees as well as the governance structures of a country. To investigate the effect that corporate ethics and governance structures have on the individuals within the organisation and how these rules interact with individual's personal ethics in making decisions within the business context and upkeep of an ethics culture.

Research question: Is ethical behaviour driven by the middle managers view on ethics based on their personal value system?

Primary objective: is to understand whether the middle managers personal value system impacts on the ethical behaviour in the organisation.

RESEARCH METHODOLOGY

The most appropriate research paradigm to use in studying human behaviour is the interpretivist paradigm (Babbie & Mouton, 2001). Due to the nature of the study and the investigation into human relations with regards to ethics, a qualitative research approach was applied.

Population and sample: Zigmund, Babin, Carr and Griffin (2013) refer to a population as any complete group. There are three levels of management in an organisation (Koontz & Welhrich, 2010).

The population was the financial organisations in Johannesburg and the sample was the middle level management team in Johannesburg.

Research Instrument: Interviews were used to obtain data from the respondents; the questions were deduced from literature as well as derived from the objective of the research.

Data collection: The researchers conducted six interviews with middle managers and the interview consisted of eight questions in order to have enough data to look for trends in behaviour and gain an understanding of the ethics environment in the organisation. The interviews were recorded to aid in the analysis of the data.

Data Analysis: Analysis took place in the form of a narrative analysis (Easterby-Smith, Thorpe & Jackson, 2008).

Ethical considerations: Due to the sensitive nature of the research the organisation and respondents identity has been omitted in the presentation of the findings.

FINDINGS: Centered on the following five themes:

Personal alignment of values with that of the organization. / Isolated incidents of unethical behaviour does occur. /Consequence management for incorrect behavior is vital. / Governance structures enhance already positive intrinsic behavior. /Managers in general behave in an ethical manner.

Table 1: Respondents Demographics

Personal alignment of values with that of the organisation

Respondent	A	B	C	D	E	F
Age	52	25	57	34	57	36
Years in Managerial Position	22	2	36	3.5	11	1
Gender	Female	Female	Male	Male	Female	Female
Ethnic Group	White	African	White	Indian	White	White

Are your values aligned to the values of the organization and if yes which values resonate the most with you?

The initial questioning aimed to establish if the overall values of the organisation were aligned to the middle managers' personal value system. The researchers found a high degree of correlation between the organisations values and the personal values of the managers. This theme was evident throughout the interviews and the researchers found that the organisation as a whole was one where there is a strong awareness of the need to behave ethically. This aligns to the literature that is available with regards to the ethical behaviour that is displayed by organisations and how it is impacted by individuals (Gosenpud & Werner, 2015; Jones, 2015)

Respondents commented that the organisation was led in a transparent and open way. This style permeated throughout the organisation creating a workplace that was, overall, a transparent and open place in which to work. There were sufficient avenues available to create awareness of how employees and managers in the organisation should behave, as well as processes in place to report any non-compliance which could possibly occur. It was noted by Respondents B and F that compliance and ethics form an integral part of the appeal of the company as an employer, with Respondent E

commenting that good staff would leave the organisation if ethics were not upheld in the workplace. Conversely any staff not inherently ethical would feel uncomfortable and would likely leave of their own accord.

Can you think of a time when a decision was made by a manager that was against the values of the organisation?

All respondents were of the opinion that the reason for the improper behaviour displayed by Managers B, C and D were driven largely by ambition as well as arrogance that they can get away with the behaviour due to the position they hold in the company. The position held by the manager therefore had an impact on the behaviour of the manager. Hanson (2008) is also of the opinion that managers are placed under a significant amount of pressure to make decisions on behalf of the organisation which leads to additional stress and incorrect decisions being made.

What were the consequences faced by the managers highlighted for behaving in an unethical manner?

There were substantial consequences for the manager that committed fraud as described by Respondent C. The company took legal action against the manager and the case is still under investigation. The managers with behavioural misconduct as described by Respondent D and E did not experience any repercussions and are still with the company. The company has however experienced an impact as staff members have left the organisation whilst the remainder of the staff in the particular teams has low morale and have seen an increase in absenteeism. Both respondents commented that they are concerned with the disconnect shown by Human Resources when these incidents were reported. It does however seem that the organisation has identified this as a shortcoming as Human Resources has moved from a central function into the various business units to create alignment to the strategy and values.

How familiar are you with the governance structures in your organisation?

Respondent A commented that the governance structures would not necessarily change behaviour as behaviour takes a long time to change. Five of the Respondents indicated that reward and consequences reinforce behavioural change and will impact the behaviour of the organisation. Respondents B and D commented on the governance structures being in place to enhance the decision making framework in order to reinforce behaviour. It was evident that all respondents saw the managers' role as very important in setting the tone for adherence to regulations.

How familiar are you with the ethics structures in your organisation?

Overall the Respondents feel that the ethics structure is entrenched in the organisation. It is also

noted that this entrenchment is the work of continuous ongoing programs run within the organisation. Respondents E and F felt that more could be done to keep the awareness fun and interactive, with staff to keep interest in the learning. Respondent A felt the role of the manager was crucial in entrenching the frameworks and keeping it live for the employees. Moore (2015), is of the opinion that the organisation provides the framework or 'vessel' in which its members are allowed to operate in and live their values and virtues. Managers in general behave in an ethical manner

Do you feel in general that the managers in the organisation behave in an ethical manner?

All of the managers showed strong correlation in that they believed that almost all managers adhered to the core values and behave in an ethical manner – walking the talk by demonstrating how to behave in an ethically responsible manner. Two respondents spoke about the 80/20 principle to describe how the majority of the managers behaved in such a way so as to set the organisation on an overall ethical pathway. Respondent C indicated that non-compliant managers would not last long in the organisation. Respondent D pointed out that growth in the company has resulted in many middle managers being head hunted from other companies bringing in some cultural elements from these companies.

CONCLUSION

The researchers found that the organisation was overall ethical in its operations and that, in general, this was congruent with the overall values and ethics of the individual managers interviewed as well as those spoken about in the interviews. The respondents were in agreement that they have a great responsibility and impact in terms of how their employees conduct themselves and can influence the behaviour of their employees. This influence will therefore have an impact on the behaviour of the organisation and therefore the ethical conduct.

The respondents were clear that managers have the ability to influence their staff members, be it positive or negative. The respondents also noted that the presence of a governance structure will only enhance the intrinsic values of the employees and will not instill positive behaviour unless it was already present. The ethical culture in the workplace is supported by various initiatives including awareness programs by the Compliance department as well as an external contracted Auditing firm which employees could engage with should they feel they are unable to handle any particular ethics issue internally.

RECOMMENDATIONS

The culture of open and transparent dealings in the organisation is to be jealously guarded so that it may perpetuate and continue to be a feature of the working environment at the organisation. This is especially true due to the financial nature of the

organisation and the trust stakeholders place in the organisation. Middle managers play a significant role as influencers and it is recommended they be selected with care as they can influence the ethical behaviour through their value systems.

It is also recommended that the programs in place to discourage unethical behaviour or decisions should be continued and even intensified to assure employees

that the business leaders encourages honesty and integrity. Incentives in the form of sales targets do exist for managers and staff to behave in an unethical way, so managers need to be aware that they cannot drop their guard against unethical behaviour. It is therefore recommended that good processes, both internal and external be in place so any contraventions can easily be reported. Even more important than the reporting is the action that follows. In the event ethical concerns are witnessed and reported there need to be real and visible consequences. This is essential in order to show others in the organisation that there is a zero tolerance for unethical behaviour.

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Law, Ethics and Business

-How companies gain trust through websites?

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ABSTRACT

Internet Business is getting wider and wider in recent years. Many companies use internet to expand their business all over the world easily and at a low cost. If the companies make success in internet business, they have to fulfill legal responsibilities in order to make their webpages browse. For example, if their websites have a copyright infringement, they are not searched on google because of the US Digital Millennium Copyright Act. In addition, not only legal responsibilities but also ethical responsibility to fulfill is important not to lose their subscriber's trust. So that, CSR is important for success on internet business. In reality, according to the news released from Google to webmasters on 3rd Feb 2017 in Japan, Google decided some Japanese websites not to be searched on Google not only because they had some copyright infringement of others but also their contents were not trustworthy. In my opinion, for the companies to make their business successful, they must win the confidence from customers and possible customers via internet. In this article, I take some examples on real incidents in Japan and prove that appeal to fulfill CSR in their business on their websites helps internet business companies to get the confidence from portal sites, customers and possible customers through the websites.

I Introduction

How companies gain their trust from their customers or possible customers via internet? Customers who have not had a long relationship yet with your company, what makes them trust your product or your advertisement through just a website. The purpose of this study is to examine that fulfillment of CSR in your company and show that on your website help your customers or possible customers to trust your company. In this article, first I would like to define CSR, second to show tendency of small- medium companies, third to show the failure cases in Japan and learn the importance of fulfilling CSR (Especially in the part of legal responsibility) which this article points out.

II What is the definition of corporate social responsibility(csr)

Archie B. Carroll presented us corporate social responsibilities. He said, "For a definition of social responsibility to fully address the entire range of obligations business has to society, it must embody

the economic, legal, ethical, and discretionary categories of business performance." [1].

Later, he constructed those responsibilities as CSR pyramids in depicted figure (See the figure 0 cited below from his article (in his article that figure is called Figure3)).

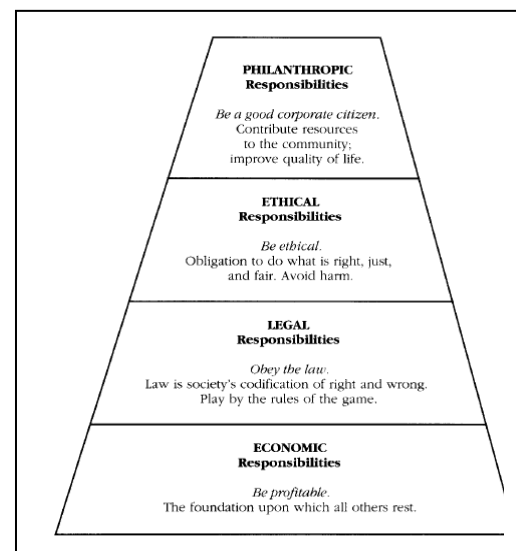


Figure0 (Citation from the Carroll's article(1991))

He said, "It portrays the four components of CSR, beginning with the basic building block notion that economic performance undergirds all else. At the same time, business is expected to obey the law because the law is society's codification of acceptable and unacceptable behavior. Next is business's responsibility to be ethical. At its most fundamental level, this is the obligation to do what is right, just, and fair, and to avoid or minimize harm to stakeholders (employees, consumers, the environment, and others). Finally, business is expected to be a good corporate citizen. This is captured in the philanthropic responsibility, wherein business is expected to contribute financial and human resources to the community and to improve the quality of life." [2].

I agree with him in thinking what the CSR is. In his context, he proposed that all the companies, including even small-medium companies, at minimum have to take care of their performance being not only profitable but also legal and ethical.

In this standpoint, I used to construct CSR Matrix in 2008 (Figure1), however to more clarify now I will reconstruct a new matrix (Figure2). All the companies including small-medium companies must fulfill a legal responsibility at first, second they have to examine their business is fulfill ethical responsibilities (those are required responsibilities that companies must fulfill, see the first step and second step of figure2 below). Some companies which have resources even after minimum responsibilities are fulfilled, they step into responsibilities in return for stakeholders' support and finally to make their reputation better (see third step and final step of figure2 below).

Figure1 (CSR Matrix, released on 2008)

	Defense Required to fulfill On main business (Must)	Offense Not required to fulfill →Optionally to make your reputation better
Acceptance from the stakeholders (Compliance)	First Step	
Submission to the stakeholders (CSR)	Second Step	Final Step

Miyuki TSUYUKI(2008), CSR Matrix, CSR to increase small medium companies in value, Japan Small Business Research Institute, Japan Small Business Research Institute Conference(Nov. 2008)

	Defense Required to fulfill On main business (Must)	Offense Not required to fulfill →Optionally to make your reputation better
Your Business Model legal	First Step	Third Step
Your Business Model Ethical	Second Step	Final Step

Miyuki TSUYUKI, CSR Matrix Ver2,

Figure2 (New CSR Matrix)

The thought of CSR has been brought to public attention, the most controversial topic CSR at present is the final layer of the CSR pyramid. For example, it is pointed out by Michael E Porter and Mark Kramer that most companies remain stuck in a "social responsibility" mind-set in which societal issues are at the periphery but the solution lies in the principle of shared value, which involves creating economic value in a way that also creates value for society by addressing its needs and challenge [3].

However, in my opinion, thinking of CSR, before concentrating on the point that philanthropy is not necessary but creating shared value is necessary, examining legal responsibility is fulfilled or not.

First of all, all the companies should take care whether their profitable business is legal or not, and

then examine whether it is ethical or not. Those two stage must be fulfilled by not only big companies but also small company. After fulfillment of those responsibilities, they are to challenge final layer, to do philanthropy in the context of Archie B. Carroll or to create shared value in the context of Michael Porter & Mark Kramer. About final layer, in my opinion, companies without funds force are not necessary to fulfilled. But legal responsibility and ethical responsibility are required to be fulfilled by all the companies. And also I think that it is responsible that not only brick and mortar business companies but also internet business companies make their profitable business fulfilled with legal responsibility and ethical responsibility. In this article, I will focus my attention on companies which doing business in internet..

III Especially to be legal is the most important when expanding a business through website

It is provided that in copyright act in Japan, on the right of reproduction it is provided in the article 21 that the author (it is provided that "author" means a person who creates the work in the article 2 (ii)) shall have the exclusive right to reproduce his work (it is provided that "work" means a production in which thoughts or sentiments are expressed in a creative way and which falls within the literary, scientific, artistic or musical domain in the article 2(i)) and on the right of rights of translation, adaptation, etc. it is provided in the article 27 that the author shall have the exclusive right to translate, arrange musically or transform, or dramatize, cinematize, or otherwise adapt his work. Even if there are some sentences on the internet bulletin board, the right of reproduction and rights of translation or adaptation of the sentences belongs to the creator of the sentences [4]. When someone would like to reproduce or adapt the sentence on the website created by someone else, he or she have to get license agreement from the sentence creator. When writers create sentences by themselves but referred to works written by somebody, is it adaptation or new creative works? In this problem, it is held that In the case that the works of somebody has integrity of works of others in the not creative part, the former works are not adaptation [5].

On the other hand, it is provided in the article 32 that it shall be permissible to quote from and thereby exploit a work already made public, provided that such quotation is compatible with fair practice and to the extent justified by the purpose of the quotation, such as news reporting, critique or research. On this quote, at the supreme court in Japan, it is held that there are two requirement judging as "quote" not "reproduction". First, the manner of expression of the work must be clearly distinguishable from the work quoted. Second, it clarifies the work is main and the quoted work is subordinate.[6]. If you reproduce other work without consent of the other, it is illegal but, quote others work without consent of the other, it is legal.

But to accept as quote, not reproduce, there fulfill two requirement above mentioned.

Moreover. In the article 23(1), it is provided that the author shall have the exclusive right to effect a public transmission(it is provided that in the article 2 (vii)-2, "public transmission" means the transmission, by wireless communications or wire-telecommunications, intended for direct reception by the public; excluding, however, transmissions (other than transmissions of a computer program work) by telecommunication facilities, one part of which is located on the same premises where all remaining parts are located or, if the premises are occupied by two or more persons, all parts of which are located within the area (within such premises) occupied by the same person(s)) of his work (including, in the case of automatic public transmission, making his work transmittable). When you post some sentence created by others on website, you have to take license from the sentence creator beforehand.

If there is an infringement of others right on the work on your website, your website might hardly be browsed because google search engine shall exclude your website. Google is ready for process not to truck the copyright infringement website under US Code Title17§ 512 Digital Millennium Copyright Act.(notice and take down procedure).Once google has completely processed the infringement complaint to request the google search engine to remove the copyright infringing website from googles search result, infringing website is not searched through google any more.

IV Content curation service site and csr

Lately, there happened the problem at the curation site served by DeNA called WELQ [7]. Some articles of WELQ on medical information without sufficient medical grounds, some articles of it have many reproduction of other website, some articles of it is clearly trustworthy(ex the reason of stiffed shoulder is ghosts on your shoulder), and some subscribers can have damages because they might buy some medicine which is recommended by the website. In the Content Curation Service Site problem, there are some different aspects to be solved.

First, medical information by the creators without sufficient medical grounds is of a problem on ethical responsibility. Second, some articles of it is clearly trustworthy is of a problem on ethical responsibility. Third, some articles of it have many reproduction of other website is of a problem on legal responsibility about copyright infringement. Forth, some subscribers can have damages because of untrustworthy website is of a problem on legal responsibility about tort law. For content curation

site owner, to withdraw website is the most terrible blow for the monetization through website.

According to the news released to webmasters from Google on 3rd Feb 2017 in Japan, Google decided to make a website browse in its standard harder than before, that it changes search algorithm that evaluates quality of websites, so that it highly ranks document data which have reliable contents desired by a retriever in a retrieval result and it doesn't highly rank untreatable websites having bad quality contents just to focus on putting the webpages much higher rank. This release may mean that the websites which don't meet the standard are not browsed not only because a website shall have some copyright infringement of others but also a website contents shall be not trustworthy [8]. In this tendency, internet business webmasters have to take care that not only their websites are legal but also are ethical..

V Conclusion

For companies to expand their business through websites, it is at least important that they examine whether their websites legal or not. And then, they should whether their contents of their websites are ethical or not. If not, their website might not be browsed by customers or possible customers. From this standpoint, for companies to use internet website to expand their business, CSR in this article defined is important and must be fulfilled.

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Students' Perception of the Position of Ethics within An Organisation

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ABSTRACT

Purpose: This study examines the perceptions that senior business management students have towards the position of ethics within organisations in Johannesburg in relation to the availability of formal ethics programmes, ethical culture, ethical leadership and ethical value systems.

Research Design & Methods: The study employed a quantitative survey design to collect data, using self-administered questionnaires from the respondents. The data were then analysed using descriptive statistics. Reliability statistics were employed to test the reliability of each construct.

Findings: The findings of this study showed that senior students have a positive perception of the ethical position of

Conclusion: There is evidence of positive attitudes towards the ethical conduct of organisations. However, some evidence shows that some organisations consider results first and ethics later, despite the availability of ethical codes, value systems, and ethical leadership and culture.

Keywords: business ethics, value systems, ethical leadership, ethical culture, code of ethics.

INTRODUCTION

Research on business ethics has for many years, especially in the 21st century, sparked much attention as a result of corporate ethical scandals and ethical failures by managers (Schoeman, 2013). These scandals are evident in illegal campaigns, bribes, insider trading and many other actions (Trevino & Brown, 2004; Tsalikis & Fritzsche, 2013). Many of these ethical scandals were triggered by business leaders feeling compelled to achieve high results or meet targets, regardless of how these results are obtained (Tsalikis & Fritzsche, 2013). Melé (2011) points out that managers regard business ethics as a key to good management, because acting without ethics is deemed to be bad management. Harvey (2002) and Schoeman (2014) have argued that it is probable that many organisations are insincere and pretentious about their ethical behaviour so that they may be seen as doing things right by stakeholders. In today's business era, it is important for an organisation to consider the people affected by the organisation's decisions (Simms, 2006), as integrity and trust are vital ethical issues that businesses must face today. This includes being honest in conducting business affairs and treating customers fairly (Oster, 2013). Many organisations view ethics in terms of compliance in such a way that their total ethical

focus and initiatives are based on stimulating compliance (Schoeman, 2015). According to a study done by Vivier (2013), business owners display uncertainties with regard to ethics, which implies that having strong ethical standards does not prove that what is wrong or right is always clear and easy. Some authors believe that ethics in a business setup is evident only in reference to the individuals (Drucker, 1981, Schoeman, 2014).

With the rise of competitive business environment, management and decision makers are now more pressured to ensure business ethics and values. The challenge is now on educators to develop ethical managers and decision makers (Beltramini, Peterson, & Kozmetsky, 2013). Trawick and Darden (1980), cited in Beltramini et al. (2013), note that, people become subtler and more thoughtful of business ethics once they have received formal education.

LITERATURE REVIEW

Definition of ethics

Ethics, as defined by Vivier, (2013), is said to be the sets of behaviours one can use to determine what is right and what is wrong, and distinguish the good from the bad. Ethics is all about making choices (Clegg, Kornberger, & Rhodes, 2007; Schoeman, 2014) and of knowing which moral principles are the central sources for these choices (Acevedo, 2014).

The importance of ethical leadership

As a result of the ethical scandals eminent in business recently, questions about the role of ethical leadership in promoting ethics have been raised. Many employees tend to run to their superiors, hoping to receive ethical guidance. Consequently leaders in organisations should primarily be a central reference for this guidance (Brown, Treviño & Harrison, 2005).

Brown et al. (2005) note that ethical leaders are valid role models for their followers as they model the ethical conduct that employees must follow. These leaders draw significant attention to ethics by emphasising it to their followers and setting these standards in organisations so as to enhance adherence (Brown et al. 2005; Demirtas, 2015). Furthermore, ethical leaders discipline employees who disregard the set standards and reward those who adhere to the standards.

Organisation value system

An organisational value system stipulates the specific conducts used to determine ethical

integrity. In identifying the position of ethics in an organisation, it is important to consider not only the ethical rules, but also the value statements and the extent to which they are applied. (Clegg, Kornberger, & Rhodes, 2007; Schoeman, 2014). Zarim and Zaki, (2016) postulate that the level of integrity in an organisation is justified by the presence of ethics.

Ethics and culture

An organisation's strategy, promotions, decision making, etc. are greatly influenced by its ethical culture. A strong ethical culture not only ensures sustainable success for an organisation (Rossouw, 2011; Schoeman, 2014), but also promotes ethical behaviour (Schoeman, 2012 and 2015). A survey conducted by Basran, (2012), reveals that organisations with supportive ethical culture for their employees are more likely to enhance the ethical conduct and behaviours of employees, resulting in increased levels of honesty in the organisation. Such organisations further decrease the incidence of unethical conduct and increase the ability of employees to report misconduct.

PURPOSE OF THE STUDY

Problem statement

With continuous acts of unethical behaviour being reported within some business practices, such as corruption, bribery, fraud and power abuse (Eweje & Brunton, 2010), it is increasingly important for managers to address these issues. The purpose of this research was to examine the following research question: How do senior students perceive the ethical position of organisations? With regard to the stated research question, the primary objective of this study was to measure perceptions of senior students who are studying a Business Management course.

RESEARCH METHODOLOGY

The research study employed a positivistic quantitative research method. According to Aliaga & Gunderson (2002), as cited in Muijs, (2010).

Population and sample

The research population was senior and post-graduate Business Management students enrolled at a university. A research sample comprises elements drawn from the population. After studying this research sample, the researcher makes inferences to the population (Sekaran & Bougie, 2013).

Measurement

The data for this study were collected through the use of self-administered scaled questionnaires distributed to senior university students on a basis of voluntary participation. To measure the perception of students towards the position of ethics within organisations, the respondents were asked to respond to questions on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Descriptive statistics were used to analyse the collected data. Descriptive statistics facilitate the reduction of research data, allow data to be interpreted easily (Fox & Bayat, 2007) and provide

a medium for presenting quantitative descriptions (Babbie & Mouton, 2001).

RESEARCH FINDINGS

Section A

The demographic data collected from the respondents. The result indicates a closely even distribution of gender, with 52% of the respondents being male and 48% female. There was no discrimination of gender. Of the total respondents, 68.8% of the respondents were employed full-time and 29.2% of the total respondents used in this study were employed part-time.

Moreover, the result also indicates that 85.4% of the respondents were in their 4th year and 2.08% were doing a master's degree course.

Section B

Reliability of the measuring instruments

The Cronbach's alpha values for each ethical construct measure. The values for all the constructs, with the exception of ethical value systems, range from 0.712 to 0.878. This is deemed acceptable for this research. According to Gliem and Gliem, (2003), as the Cronbach's alpha coefficient gets closer to 1.0, the internal consistency of the items in the scale increases.

Descriptive statistics

Descriptive statistics such as minimum, maximum, mean and standard deviation were calculated for the ethical variables. All the variables were measured on a five point Likert scale. The median value of the scale was 3. Hence, the mean of each ethical aspect of the instrument was analysed against the calculated median value. The median of 3 indicated the midway in identifying positive and negative perceptions. A mean of under 3 was considered "negative" and a mean of higher than 3 was considered "positive". Table 1 below shows the summary of the descriptive statistics.

Table 1: Summary of relevant descriptive statistics

Construct	Minimum	Maximum	Mean	Deviation (from 3)	Standard deviation
Formal ethics programme	3.229	3.479	3.389	0.389	1.1300
Ethical leadership	3.667	3.792	3.729	0.729	0.9094
Ethical culture	3.333	3.688	3.531	0.531	1.0324

Perception of availability of ethics programme:

There were three items, question 5-7, (refer to attached document in the annexure) that constituted the measure of the formal ethics programme construct. The mean scores for this construct ranged from 3.23 to 3.48 for all 4 items. The mean value was hence 3.389, and a positive deviation of 0.389 from the median of 3 as seen in table 2. This

indicates that the general perception of the respondents towards the formal ethics programme construct was positive. Therefore, the respondents had a positive perception of the presence of ethical codes and programmes in organisations.

Perception of ethical leadership: The ethical leadership construct had 6 items, (refer to attached document in the annexure). The mean for the 6 items in this construct ranged from 3.667 to 3.792, and the overall mean for this construct was 3.729, with a 0.729 positive deviation from the median of 3. This suggests that the perceptions of the respondents towards this construct was positive. Hence, the respondents believed that the leaders in their organisations were ethical.

Perception of ethical culture: The construct on ethical culture had 4 items. From table 2 it can be seen that the mean value for this construct was 3.531. The deviation from the scale was 0.531 to the positive. This implies that the respondents had positive perceptions towards the construct. This shows that the respondents were of the opinion that ethical cultures existed in their organisations. Hence their perception of this construct was positive.

CONCLUSION

The study shows a positive perception of the presence of ethical leadership, a strong ethical culture as well as the availability of formal ethics programmes within organisations. This reveals that senior students perceive their organisations to be ethical. The findings of this study agrees with the works of Zarim and Zaki, (2016) and the survey conducted by Basran, (2012). From the data, it can be noted that there exists a significant statistical relationship (although not a direct one) amongst the three constructs, namely ethics programmes, ethical culture and ethical leadership. The existence of formal ethics programmes and ethical leadership may help to cultivate an ethical culture in the organisation. The respondents' positive perceptions of the formal ethics programmes and ethical leadership tended to influence their perceptions of ethical culture.

In view of formal ethics programmes, notably about, 29% of the respondents were of the opinion that formal ethics programmes did not exist within their business organisations, with many unaware of the fact that any such programmes even existed. This indicates that in some organisations, the existence of ethical codes or programmes has not been communicated effectively to all staff members. The results show that respondents had positive perceptions of the ethics of their leaders. However, it needs to be noted that 28.26% respondents tended to 'Disagree' and 18.48% 'Neither agreed nor disagreed' to the items in the ethical leadership constructs. This raises a few eyebrows in the sense that even though the greater majority agreed, there were a substantial few who tended to think otherwise or even opposed the fact of the matter. This means that there were negative perceptions of the presence of ethical leadership in their organisations and measures should be put into place to attempt to minimise the negativity of the

perception towards ethical leadership within an organisation.

RECOMMENDATIONS AND MANAGERIAL IMPLICATIONS

Having a culture of ethics as well as leaders who behave ethically is an important drive for success in any business organisation. It is important for managers in a business organisation to consider all the stakeholders of the organisation when making decisions within the organisation. A detailed ethical code, made available to all employees, including the part timers is important to keep them on a sound course. Ethical conduct cannot be overlooked in certain areas of the organization, but must be practised everywhere at all times to ensure trustworthiness from all employees.

The study showed that many organisations had written codes of ethics as well as ethical leaders in place. This in turn led to highly positive perceptions of respondents regarding the overall ethical status of their organisations. Where the codes and ethical leadership were low, the perception of the ethical culture was seen to be low. The assumption is then that if something is expressly prohibited, there is cause for concern. It is therefore important for managers to have formal ethical programmes and to behave ethically at work. This in turn encourages employees to behave ethically at work. Employees adopt the behaviour of managers and leaders at the workplace.

In today's world, fraud and corruption in business are not novel concepts. To eradicate the future occurrence of such practices, business ethics should be a major course in business modules. This can in turn decrease the possibility of unethical conduct at work and refine the ethical awareness of students.

Future business leaders need to know that the application of ethical values is as important as the application of business principles. Business schools should help promote business ethics in the lives of students in order to promote ethical behaviour within organisations even though this might not guarantee the ethical conduct of all its students in the organisation.

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Consumer Awareness of Supply Chain Management Flows: Intercultural Differences Between Consumers in Thailand and the United States

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ABSTRACT

Consumers purchase goods and services based upon the utility that they receive from the exchange. Supply chains provide the utility that consumers receive. However, consumers may not fully realize the utility that they receive from a supply chain if they are not aware of the benefits the supply chain provides. This paper explores the extent to which consumers in Thailand and the United States are aware of the supply chain activities (flows) that provide the benefits they seek. Survey results suggest that intercultural differences between consumers in Thailand and the United States are related to consumer awareness of supply chain flows. Consumers in Thailand were found to be more aware of supply chain flows than consumers in the United States.

PAPER OBJECTIVE

This paper compares awareness of variables inherent in the supply chain process across two cultures: United States and Thailand. Implicit in the comparison is the suggestion that intercultural differences between countries will lead *consumers* to have different levels of awareness of supply chain flows. Additionally, this research seeks to determine those variables which are most profoundly impacted by one culture or the other. First, the paper reviews identifies important supply chain flows. Then Hofstede's cultural dimensions are reviewed [1][2]. Based on Hofstede's model, the cultural differences between Thailand and the United States are explained. Next, the cultural differences between Thailand and the United States are used to posit differences in consumer awareness of supply chain flows and the perceived benefits those consumers think are derived from their respective supply chains.

SUPPLY CHAIN FLOWS

Several authors have noted the importance of SCM in managing various flows, including the flow of goods and services, the flow of information, and the flow of finances [5]. SCM's additional objectives include synchronizing the requirements of the customer with the flow of material from suppliers in order to balance high customer service, low inventory investment, and low unit cost [7]. According to Sahin and Robinson, there is a significant physical flow between supply chain

members in addition to financial and information flows [6]. Material flow is the actual movement of goods or the delivery of services across the supply chain. Information flow refers to the ability of supply chain members to obtain any type of necessary information, select it, disseminate it through the network and to integrate different processes through firms. Financial flow is the process by which two or more organizations in a supply chain, including external service providers, jointly create value through means of planning, steering and controlling the flow of financial resources on an interorganizational level.

HOFSTEDE'S CULTURAL DIMENSIONS

"Culture is the collective programming of the mind that distinguishes the member of one group or category of people from others [2, p. 3]." The original conceptualization was a four dimensional framework of a country's culture including power-distance, uncertainty avoidance, individualism versus collectivism, and masculinity versus femininity [1].

Power-distance refers to the notion that not all individuals within a society are equal, as well as the attitudes of the people toward the inequalities among them. It is the extent to which less powerful societal members expect and accept that power is distributed unequally. Uncertainty avoidance is the way societies deal with the notion that the future is unknown, and the extent to which society members feel they should try to control the future. It refers to the extent that societal members feel threatened by ambiguous situations and thus have created beliefs and institutions to avoid this ambiguity. Individualism versus collectivism refers to the degree of interdependence that a society maintains among its members. With individualist societies people feel responsible for the welfare of themselves or their family. In collectivist societies, people rely more on groups for their welfare in exchange for the people's loyalty to the group. The masculinity versus femininity dimension shows the degree to which a society is driven by competition, achievement and success (Masculine) or the degree to which a society is driven by caring for others and quality of life (Feminine). In other words, this

dimension deals with what people in society want, being the best or liking what they do.

Driven by Hofstede's previous work and others the model was expanded to include two additional dimensions, long term versus short term orientation and indulgence versus restraint [3][4]. Long term versus short term orientation describes the extent to which a society adheres to long held beliefs and traditions and view societal change with distrust (long term orientation) or whether the society embraces frugality and education as mechanisms to prepare for the future (short term orientation). It is society's choice of whether people focus on the future or the past and present. Finally, indulgence versus restraint is the extent to which people in society control their desires and impulses based in how they were brought up as children. Weak control over desires and impulses is referred to as indulgence whereas strong control over desires and impulses is referred to as restraint.

Hofstede's model suggests that the primary differences between the Thai culture and that of the United States involves the dimensions of power-distance, individualism, masculinity, uncertainty avoidance, and indulgence. Compared to the United States, Thailand scores higher on the power-distance index (PDI), lower on the individualism index (IDI), lower on the masculinity index (MAI), higher on the uncertainty avoidance index (UAI), and lower on the indulgence index (IGI).

RESEARCH METHOD

An electronic survey was constructed to collect the data assessing consumer awareness of supply chain flows in Thailand and the United States.

Consumers were asked to imagine a retailer that they regularly buy from when responding to the survey questions. Surveys were collected from 598 consumers in Thailand and 549 consumers in the United States.

RESULTS

Significant differences were found for all of the 18 supply chain flows in this study. Generally, consumers from Thailand reported higher awareness of the supply chain flows than consumers from the United States. Consumers from Thailand reported higher than moderate awareness of all supply chain activities (i.e., above the scale midpoint of 4.0). Consumers from the United States were not even moderately aware that supply chain activities included choosing manufacturers, choosing suppliers, inventory management, research and development, obtaining customer information, obtaining competitor information, estimating sales, invoicing, credit, and allowances.

CONCLUSION

This research found that consumers in the United States were generally less aware of supply chain

activities than consumers in Thailand. The implication is that the United States consumer lack of awareness of supply chain activities results in a lower estimate of the magnitude of benefits they receive from an exchange than they would have had they been if they were more aware of the supply chain activities. The magnitude of benefits consumers receive from a supply chain has yet to be explored. However, if the conjecture that lack of awareness of supply chain activities results in a lower estimate of the magnitude of benefits consumers receive from an exchange is true, the expectation would be that a lower estimate of benefit magnitude delivered by a supply chain might result in consumers being more price sensitive.

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Applications of Supplier Governance Mechanisms: An International Study

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ABSTRACT

This study extends the discussion by investigating the contingency effects of economic development on the usage of governance mechanism. The findings suggest that relational governance is a multi-dimensional construct, consisting of two conceptually and pragmatically different mechanisms: information sharing and cooperation. Furthermore, the statistical results reveal significant differences in applying governance mechanisms between developed and emerging economies, especially when considering the origin of supplier and source of opportunism..

INTRODUCTION

Supplier governance is a critical strategic issue for the success of supply chain management (Williamson, 1999; 2008). Transaction Cost Economics (TCE) suggests that the major goal of governance is to reduce opportunism that arises from execution of a contract's uncertain conditions. The literature suggests two primary governance mechanisms, contractual governance and relational governance, to mitigate the opportunistic behavior. Contractual governance refers to the use of formal contracts to control the overall performance of suppliers. The contract is the foundation for the overall business transaction, and it provides formal governance of the interactions between the buyer and the supplier with regard to their responsibilities and behaviors. Nonetheless, neither buyers nor suppliers have complete information about all the conditions under which the contract will be executed, which is called bounded rationality [4]. Bounded rationality forces the contract to be modified or adjusted after signing, and such modification is called *relational adaptation*. Since not all aspects of an inter-organizational transaction can be completely detailed by the contract, additional relational adaptation or relational governance becomes necessary for settling contract disputes and safeguarding completion of transactions [7]. Relational governance defines the degree to which the two exchange partners cooperate as a team to solve problems, share information to establish joint strategic directions, and produce mutually beneficial outcomes.

When these two governance mechanisms, contract and relational, are collectively used, it is known as hybrid governance [6]. Managers must be able to employ hybrid governance to effectively manage opportunism, arising from two transaction attributes: supplier asset specificity and environmental uncertainty [3][4]. Supplier specificity refers to the level of supplier resources spent on the contract that cannot be transferred to other buyers. Asset specificity could potentially cause opportunism, as both supplier and buyer could engage in "hold up" behavior if a supplier made a specialized investment. On the other hand, Environmental uncertainty is defined as the degree of uncertainty with market, behavior and technology. Environmental uncertainty affects almost all aspects of business transactions, causing difficulties in the execution of contractual and relational governance. Several studies have confirmed the efficacy of contract and relational governance mechanisms. Nonetheless, the alignment of transaction attributes and governance mechanisms and the relative effectiveness of the contractual governance, and different social control mechanisms have not been fully examined [5].

This study proposes that the concept of relational governance consists of two separate components: *cooperation of problem solving* and *information sharing*. Cooperation refers to establishment of problem-solving procedures and implicit agreements for exchange contingencies not covered by formal written agreements. Thus, neither party would exploit the other party's vulnerabilities in the exchange relationship. Information sharing refers to sharing of important information, such as forecasts, production, and schedules, and would facilitate a high level of interfirm cooperation. These two components represent the engagement of two different buyer-supplier interaction activities during contract implementation and fulfillment. Even though previous studies combine them as a single construct, they are likely to have different effects on reducing opportunism. Furthermore, from the aspect of contingency theory, the adoption of alternative governance methods could very well depend on some contextual factors, such as stage of economic development, as suggested in the literature [3][6]. For instance, operations in developing countries face the challenges of less reliable legal frameworks

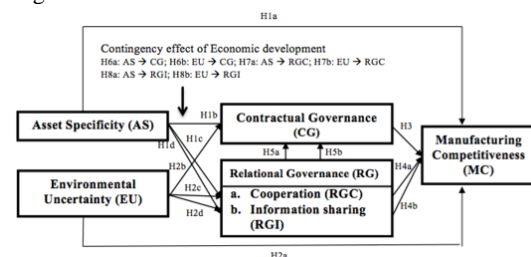
and infrastructures, and firms may choose not to rely on contractual governance as much as their counterparts in developed countries do. Overall, this study intends to extend the discussion of TCE and procurement to the contingent applications of contracts and two relational mechanisms. Specifically, we would address the following research questions:

- (1) What are the usage and effectiveness of the three governance mechanisms, contract, cooperation and information sharing, in reducing the opportunism arising from two primary transaction attributes, asset specificity and environmental uncertainty?
- (2) How do the state of economic development or other contingency factors influence the adoption of governance mechanisms?

THEORETICAL BACKGROUND

Figure 1 displays a TCE-based research model that highlights the theoretical relationship among environmental uncertainty (EU), asset specificity (AS), contractual governance (CG), cooperation governance (RGC), information sharing governance (RGI), and manufacturing competitiveness (MC).

Figure 1. Basic model



Manufacturing competitiveness (MC) is used to measure the overall performance of purchasing and supplier management. Several studies [2][7] have used MC as the dependent variables to capture the strategic contribution of procurement, supplier governance, or supplier management. The rationale is that, as supplier performance improves, due to better governance, a firm can definitely expect to see improvement in all aspects of manufacturing performance. Additionally, purchasing components and raw materials allow the buyer to invest resources in its core business to improve its overall manufacturing performance [7]. Finally, based on the literature, we also hypothesize that economic development influences the selection of governance mechanisms.

RESEARCH METHODOLOGY

The data used in this study were gathered by the Global Manufacturing Research Group (GMRG) in 2013 – 2014. Since 1985, the GMRG has conducted several rounds of worldwide surveys that have been utilized in many SCM studies. In each round, a common survey instrument for all countries was

developed to empirically test specific research issues based on well-grounded theories. The survey instrument was translated back and forth into the native language of the country and English, ensuring its equivalency, validity and reliability of the translated surveys [7].

This study uses the data from the Round 4.0 Survey, with 987 samples from 19 countries and 22 industry classifications. The data was collected with the plant manager identified as the key informant. More than 50% of the samples were collected from electronic and electrical equipment (US SIC 36), fabricated metal products (US SIC 34), commercial machinery, as well as computer equipment (US SIC 35), and food and kindred products (US SIC 20). We do not find significance in environmental uncertainty, asset specificity, or governance between industry types.

4. Statistical analysis

Table 1. The SEM results: base model.

Path (Hypothesis)	Standard parameter estimate (t-value)	Result
H1a: AS→MC	0.11(2.40)*	Supported
H1b: AS→CG	0.11(2.63)*	Supported
H1c: AS→RGC	0.51(12.16)**	Supported
H1d: AS→RGI	0.26(6.88)**	Supported
H2a: EU→MC	-0.13(-2.93)*	Supported
H2b: EU→CG	0.24(5.70)*	Supported
H2c: EU→RGC	-0.16(-3.84)	Unsupported
H2d: EU→RGI	-0.17(-4.10)	Unsupported
H3: CG→MC	0.12(2.73)*	Supported
H4a: RGC→MC	0.10(2.31)*	Supported
H4b: RGI→MC	0.15(3.10)*	Supported
H5a: RGC→CG	0.05(1.34)+	Unsupported
H5b: RGI→CG	0.39(7.97)**	Supported

Fit indices: Chi-square/df=4.707

RMSEA=0.061 (0.057; 0.066); RMR=0.052; CFI=0.92;

NFI=0.91; GFI=0.93; AGFI=0.91

Note: ** $p < 0.01$, * $p < 0.05$, + $p < 0.10$

Table 1 display the SEM results related to the proposed research model. The overall fit indices of the model are all found to be within the acceptable scope, suggesting that the model was a good fit to the data: RMSEA=0.061 (0.057; 0.066); RMR=0.052; CFI=0.92; NFI=0.91; GFI=0.93; AGFI=0.91 (Table 4).

Overall, the statistical results support the basic research model in Figure 1, with 11 of 13 hypotheses being supported (Table 4). We also follow Mathieu and Taylor's (2006) protocol to examine and compare several competing models (full vs. partial mediation) in order to confirm the mediation effect. The results support the findings: RGC, RGI, and CG partially mediate EU→MC and AS→MC. Section 5 discusses the unexpected results of the paths: EU→RGC (H2c), EU→RGI (H2d). the statistical results between developed and emerging groups are significantly different. With the exception of EU→CG (H6b), Economic Development has a significant moderating effect on five out of six paths: AS→CG (H6a), AS→RGC (H7a), EU→RGC (H7b), AS→RGI (H8a), and EU→RGI (H8b). Economic Development appears to be an important contextual factor for the usage of governance mechanisms. Similar to the results for the base model, firms in both groups choose to use

both relational governance mechanisms to safeguard AS but not EU.

CONCLUSIONS

In this study, a TCE-based model is developed that hypothesizes the transaction attributes—manufacturing competitiveness relationship, with three governance mechanisms (contract, cooperation, and information sharing) being the partial mediators. Previous TCE studies in governance mechanisms are primarily based on the developed economies. We set out to examine and understand the contextual conditions under which different governance mechanisms are adopted. This research question is motivated by the call from several studies that advocated economic development being a contextual variable in adopting various purchasing practices, including objectives, supplier selection, social exchange, and location decision [1]. The GMRG dataset includes samples from both developed and emerging economies, offering great opportunities to validate the theoretical relationships developed based primarily on western literature. The statistical results reveal significant differences in how firms apply alternative governance mechanisms to mitigate opportunism between developed and emerging markets. Furthermore, this study extends the academic discussion of supplier governance with the following findings.

(1) *Relational/social governance is a multi-dimensional construct.* The literature recognized and confirmed the value of relational governance, but has not properly defined and studied relational governance as distinguishable multiple components. We believe the two dimensions proposed in this study, cooperation and information sharing, better capture the spirit of relational governance, and our statistical results verify this design. To develop an effective supplier governance strategy, it is critical to better understand the distinguishable functions and values of various social mechanisms. Finally, embedded relationships include three major components: trust, information sharing, and cooperation of problem solving. Built on the results of this study, the future studies should also examine the relative effect of trust in reducing hold-up hazards.

(2) *The contingency factors of adopting governance mechanisms.* The findings indicate that our samples use all three governance mechanisms simultaneously. Nevertheless, the usage could be contingent on three factors: source of opportunism, economic development, and origin of supplier. Additionally, the effectiveness of control mechanisms varies between domestic and international suppliers. This finding is valuable to multinational companies that must learn to develop effective supplier management among the different plants of their global supply chain network.

(3) *The change in the pattern of governance mechanisms usage.* The statistical results confirm the theory that emerging economies use more of relational governance. However, it is important to point out that, slightly different from the conventional belief, our samples in emerging economies use contractual clauses at a considerable level, and the developed markets also rely heavily on relational governance to mitigate opportunism from asset specificity.

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Climate change in lean supply chain

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ABSTRACT

This study reviews research literature including examples of exploring how severe weather influences lean supply chains. In this study, we discuss the impact of severe weather and climate change on lean supply chains to ensure operational strategy of companies remain during these events. This literature review with cases contributes to the advancement of operations management research areas on lean supply chains.

INTRODUCTION

Climate Change has emerged as critical topics in both business and public. Climate change influences environmental treaties, shareholders' value and customer' purchase patterns and is driving threats and opportunities for businesses in supply chain. In addition, climate change poses significant risks to supply chain. Supply chain network is complex mechanisms to have efficiency in climate-related change. Climate change is to be a major external risk factor in supply chain networks as how vulnerable supply chain activities are to extreme weather patterns. For example, there are forecasted great damage costs: the recent flooding in Thailand, hurricane Katrina that hit New Orleans, USA in 2005, the huge earthquake that hit the northeastern region of Japan in 2011, Ebola virus in 2014 and the huge earthquake in Nepal in April 2015. Firm, who makes a contract with suppliers, requests to incorporate climate change considerations and to engage suppliers for the reduction of their greenhouse gases emissions in their supply chain as mandatory [1]. Walmart can evaluate their suppliers' environmental commitment to confirm conformance regarding working with suppliers. Thus, most organization have become increasingly vulnerable to changing global environmental conditions in supply chain. Schneider [2, p.53] addressed that 'climate change poses a challenge that will test nature, human populations, as well as markets and economies.' McKinnon [3] presented that companies have pressure to reduce the climate change impact of their operations in supply chain. In March 2012, in the "Delivering Tomorrow: Logistics 2050 A Scenario Study", DHL [4] predicted frequent occurrence of disasters due to rapid climate change and resultant damage to supply chain systems. Organizations should consider climate change as a market issue towards climate change affect among others through their entire supply chain [5]. Therefore, this study is intended to derive lean supply chain strategies of organizations

for quick and efficient responses to climate change through review of cases.

LITERATURE REVIEW

Christopher [6, p. 15] addressed a supply chain as "the network of organisations that are involved, through upstream and downstream linkages, in the different processes and activities that each produce value in the form of products and services in the hands of the ultimate consumer". Supply Chain Council [7] announced that a supply chain "encompasses every effort involved in producing and delivering a final product or service, from the supplier's supplier to the customer's customer". Lean supply chain seeks to maximize profits by minimizing waste cost and time. Robinson [8] addressed that lean supply chains that have been the primary driver to improve efficiencies among companies, their suppliers, and their customers. Thus, firms are creating ways to circumvent disruptions and minimize their impact on the business with against climate change through lean supply chain development [8]. IPCC [9, p. 78] defined climate change as "change in the state of the climate that can be identified by changes in the mean and/or variability of its properties, and that for an extended period, typically decades or longer". Dasaklis and Pappis [10] suggested that supply chain and climate change might be classified into two main streams as follows: First, theoretical and carbon management across the supply chain to minimizing total costs by taking into account carbon emissions parameters. Second, practical and closely related industry such as agricultural, food or automotive industry, sectors to provide assessments of climate change vulnerabilities or build on carbon footprints inventories for these specific sectors. In addition, suppliers' engagement towards climate change information [11], examination the carbon footprint across supply chains [12] and the environmental impacts of both online and conventional retail supply chains [13]. Supply chain has risks and opportunities due to climate change in the form of extreme events and other severe weather such as, flooding, tornado, higher frequency of hot summers, desertification, hurricanes, increased storm intensity, drought etc. Therefore, climate change affects supply chain operations. For example, the automotive industry needs to keep abreast of changes in the regulatory landscape in areas such as, fuel efficiency standards, environmental taxes and pollution reduction. Halldorsson and Kovacs [14] presented that a

changing environment will disrupt global supply chains and thus organizations need to adapt their supply chains in response to a changing environment and in preparation to reduce climate-related risk. As the risks associated with climate change, organizations thus establish responding strategies for environments where supply chains have suffered because of the complexity of supply chains due to the expansion and networking of global distribution.

SUMMARY OF CASES

Although the weather cannot be controlled or sometimes even predicted, companies can take steps to prepare for serious weather events in hopes of limiting their impact. Since extreme weather may increase transportation costs in all kinds of material's movement.

For example, Hurricane phenomena can influence the speed of logistics movement.

While review of existing research suggests that supply chains dependent on agriculture are most vulnerable; everything from cultivating crops to the transportation of finished products to the consumer can be derailed by a storm. In recent years, events such as the Thailand floods of 2011 and Hurricane Sandy of 2012, Japan earthquakes in 2011, and Russian drought in 2010 have proven the global impact of a regional event. Trends show that the frequency of these disastrous events is increasing and some attribute that increase to climate change. In order to prepare and protect themselves against such events companies have begun taking measures to build resilience into their supply chains. Such efforts include diversifying suppliers, moving towards local supply chains, mapping supply chains to identify threats, and improving communication.

DISCUSSION AND CONCLUSION

If uncontrollable environmental changes occur, opportunities to use such approaches will be lost no matter how good the approaches are. In this study, lean supply chain management considering climate change presented in uncertain environments. Lean supply chain should drive on climate change for supply chain strategic and operations management. As Goldstein [15] proposed that implementing a proactive plan is the best way to prepare for the devastating effects of severe weather and climate change. With the increasing attention paid to climate change that can accompany it, firms are starting firstly to take at their own companies to lessen the impact of such events.

Future study on lean supply chain study and climate change will explore implications of design of lean supply chain.

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Rural tourism: experience, anticipation and business development

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Paper abstract

The paper explores how and why certain niche tourism activities become successful and how other tourist authorities and businesses can potentially emulate their success. Tourism business in a rural setting is regarded as one of the remedies for restructuring rural economies in the past decades and yet endogenous growth has also been recognized as important; drawing on the natural and social capital available. Drawing on leadership theory, economic psychology and a model identifying nine nudge factors that could induce tourism (Haven-Tang and Jones, 2012; Dolan et al, 2012; McGhee et al, 2005), case studies of experience-based niche rural tourism in the UK are used to highlight the relationship between the tourist as consumer, with a series of factors that influence behaviour in an era of 'saturated' choice (Urry and Jonas, 2011; Novelli, 2005; Lanea and Kastenholz, 2015). We argue that as tourists demand experiences above all else and are fragmented as consumers, the opportunity to develop alternative and non-traditional supply of such experiences is growing. This rests on tapping into a post-modern sensibility where cultural capital is diverse and quirky. Referring to criteria for successful rural tourism (Wilson et al, 2001) the cases will be analysed. We argue there is significant potential for areas with little natural resource or other traditional tourist capital (Garrod et al, 2006; Seddighi and Theocharous, 2002), to develop their offer in rural areas; if they understand the psychology of tourists as well as their decision frames accompanied with informed and strong leadership which actively draws in and strengthens local social capital.

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The Seven Efforts of Toyooka City: A Study of Local Tourism Development

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Abstract

Toyooka City of Hyogo prefecture, Japan, is a well-known tourist site, despite being in a relatively remote location. Through research, it has been made clear that there are various unique efforts which have been conducted, all collectively adding to the appeal of the entire city area.

Among the various efforts, this paper will explore the following seven aspects; the first will be the efforts to bring back storks, the symbol of the town. The paper will continue with exploring the regional geopark, Kannabe Ski Resort, Izushi-Soba, The guest house Hachibei, Toyooka Bags, and Kinosaki Onsen. This paper will introduce these seven initiatives in the purpose of providing insight for local tourism development, and describe how they contribute to the city's success.

I. Bringing back storks

Wild storks once could commonly be found all over Japan, but had greatly decreased its number, due to environmental destruction such as massive use of agricultural chemicals, down to only 20 in 1956. Toyooka City has worked on the preserving them through activities such as breeding, however the wild storks were declared extinct in 1971.

This did not stop Toyooka City from giving up; with the tenacious efforts to bring back the storks, Toyooka City was successful in rearing and breeding the storks, and in 2005, five reared storks were released to the wild.

It is Toyooka City's goal to bring the storks back, not only to the wild, but everyday life as well, where people and nature can coexist. Their endeavors are gaining attention around the world as a unique effort, and visits here for environmental studies are on the rise.

II. Geopark certification

Toyooka City is known for its marvelous San'in Coast, and has become a World Geoparks Network member in 2011. The greatest feature of the San'in Coast Geopark is the variety of coastal topography, including the igneous rocks and strata; in fact, there are findings that link to the formation of the Japan Sea dating back about 25 million years ago. The rias and sand dunes formed by sea level change and crustal deformation is a gift of nature, and valuable topography and geological heritage can be found at this location.

The geopark area has been a part of local everyday life for a long time, and the culture and history of the people with diverse natural backgrounds can be found. In the San'in Coast Geopark, these features have nurtured the development of activities that lead to conservation of natural heritage and revitalization of the community through geo-tourism in the area.

Since the area started geoparking activities, efforts to utilize regional resources by residents has shown a remarkable increase; at the San'in Coast Geopark, there only three companies operating pleasure boats before the Geopark was approved. Now there are 9 pilot boats operated by 9 groups, including sea taxis by small fishing boats. Regarding outdoor activities, there are many programs utilizing regional resources, such as snowshoe walking and geo-canoeing in various areas of the area. For local guide activities, Genbudo guides are beginning to shift to self-sustaining activities such as setting up independent NPO clubs. These regional movements are actively supported by universities and administrative agencies as well.

III. Kannabe ski resort

The Kannabe area was formed by volcanic activity from about 20,000 years ago. Craters remain at the top of the mountain, and the valley formed by the lava flow is rich in surroundings, with more than 30 waterfalls and caves.

The history of the Kannabe ski resort is long: it is a prestigious ski resort for more than 100 years. Ski visitors crowd the winter, but there are also movements focusing on training camps during the summer as well.

IV. IZUSHI-SOBA

Izushi is an historic castle town and buildings of the Edo period still remain to this day. The local industry was silk fabric for hundreds of years. As chemical fiber spread, the industry struggled to develop, and soon shifted to another cultural heritage; soba, which originally is a culture brought from Shinshu, introduced over 300 years ago. There are now 50 buckwheat restaurants, making it a tourist destination where more than one million people visit each year.

V. Hachibei

In Toyooka city Tantouchi, there is a guest house called Hachibei. The guest house is extremely popular with year-long reservations. Despite its popularity, the area is extremely quiet; except for the hearth and the donburi (old sake). Guests surround the hearth and enjoy simple meals with sake. Perhaps Hachibei's success describes how stressful and fast-paced everyday life is, and reminds us the importance of taking a step back to a simpler time.

VI. Toyooka bags

Toyooka's bag industry dates back 1,000 years, and though sales are impacted by imported goods, decreasing to one-third of that of its peak, the

"Toyooka bag" brand still has a name in the consumer market. Toyooka City has also employed a very talented producer from outside the city to promote the brand, and many tourists visit Toyooka Bag Street to see and buy these traditionally elegant bags.

VII. Kinosaki onsen

Kinosaki Onsen has a unique system; just stay at the inn, eat at any outdoor restaurant and relax at hot spring of your pleasing in the area. Thanks to this system, the whole town becomes as if a theme park of hot springs, as well as an active case of coexistence and prosperity.

Conclusion

Toyooka City is a city with diversity; through the seven efforts aforementioned, the city has successfully developed its local tourism by utilizing its local respective strengths.

Inbound tourists are also increasing remarkably, by employing foreigners at the city hall, to spread the word internationally. Also, the mayor positively gives lectures, exhibitions and promotions to companies overseas such as Paris and New York. Toyooka City is indeed a successful model among other areas in Japan, and there are many applicable findings that can be utilized for the development of local tourism.

It was found that it is important to dig up resources already in the area, to make stories, to utilize external people in some cases, and to disseminate information abroad.

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Study Related to Factors causing Foreign Tourists from South East Asia to Select Okinawa -Case Study of Taiwan-

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ABSTRACT

The number of foreign visitors to Japan was relatively limited though Japan has been rich in tourist attractions, but the number is dramatically increasing thanks to enforced tourist policies of the Japanese Government. It has been found through the present study related to motivations of Taiwanese selecting Okinawa, located closest to their own country, as a destination when visiting Japan, that there are differences in motivation of visiting Japan among Taiwanese and foreign visitors as a whole.

Keywords: visits to Japan, Taiwan outbound, sightseeing in Okinawa

1. Introduction

The number of foreign visitors to Japan in 2016 was 24.03 million, an increase by 21.8% on year-on-year basis. This means that the number has increased by 2.4 times after recording more than 10 million (10.36 million) visitors for the first time in 2013.

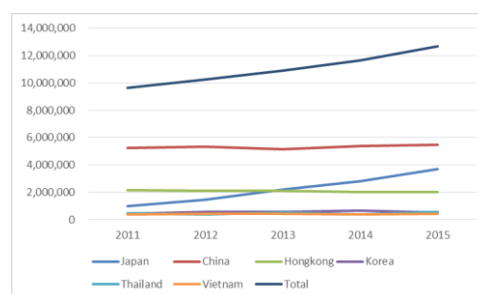
The number of foreign visitors was as small as 5.21 million back in 2003 when the Japanese government first introduced the “Visit Japan Policy”. The target number of foreign visitors was set to 20 million by 2020 in the policy of 2013, but it was revised up to 40 million thereafter. As a matter of course, the travel consumption is also on the increasing trend, and the travel consumption in 2016 amounted to 347.6 billion, accounting for 0.7% of the Japanese GDP (531,647 billion).

This explosive increase in the number of foreign visitors to Japan plays a certain role also in regional vitalization, another policy objective of the government. Eleven sightseeing tour routes covering wide areas have been created from conventional routes called Golden Routes traveling around Tokyo, Hakone, Mount Fuji, Nagoya, Kyoto and Osaka. The purpose is to decentralize increasing foreign visitors to ease congestion of urban areas and to revitalize regional economies.

The present paper focuses on Taiwanese visitors to Okinawa, located closest to Taiwan, to overview and analyze the current status in view of destination selection of Taiwanese when visiting Japan.

2. Selection of destination of taiwanese

According to the Tourism Bureau of Taiwan, 13.18 million Taiwanese traveled out of Taiwan in 2015. Among these, the number of visitors to Asian countries amounts to 3.67 million, accounting for approximately 27.8%. The breakdown thereof is as follows.

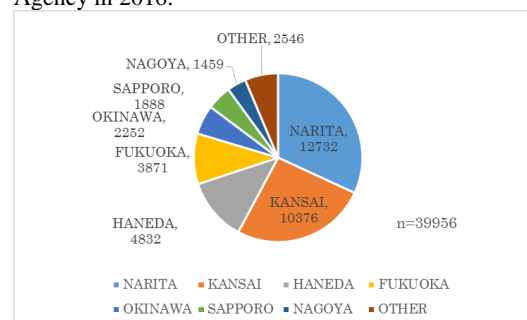


Source: Japan National Tourism Organization
Fig1: Number of Taiwanese Traveling Abroad (PAX)

As it is apparent from the above graph, while the numbers of visitors to countries other than Japan have either slightly increased or decreased since 2011, the number of visitors to Japan is the only steadily increasing one and coincides with the growth of the total number of visitors. This indicates that the current measures of the Japanese government are actually boosting demands.

One large factor is that domestic LCCs (Low Cost Carriers) went into service to Taiwan which lead to a dramatic increase in the number of flights connecting Taiwan and Japan and also caused cuts in air fares. Further, enhanced promotion of entities including the Japanese National Tourism Organization also in local cities in Taiwan has proved to be effective to appeal to customers.

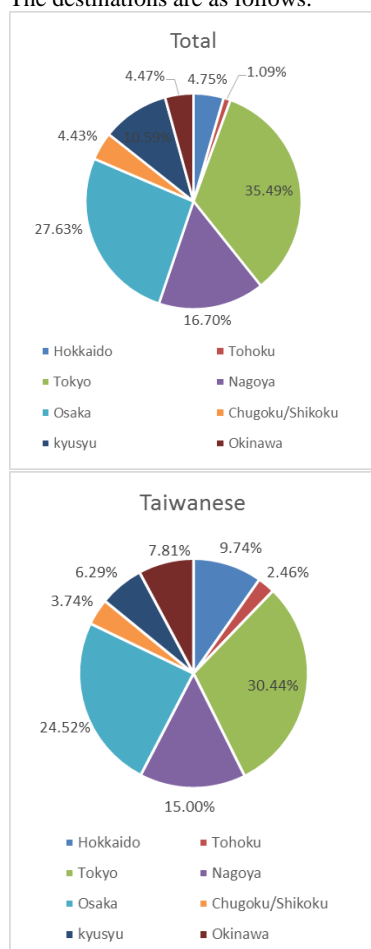
Visitor behaviors at different cities in Japan have been revealed by a behavior survey of foreign visitors to Japan conducted by the Japan Tourism Agency in 2016.



Source: Japan Tourism Agency, 2016
Fig2: Share of Used Airports

Excluding the airports of the Golden Route, Narita, Kansai and Haneda, the number of passengers of Okinawa airport ranks second after Fukuoka, and is thus larger than that of Sapporo, the entrance of Hokkaido.

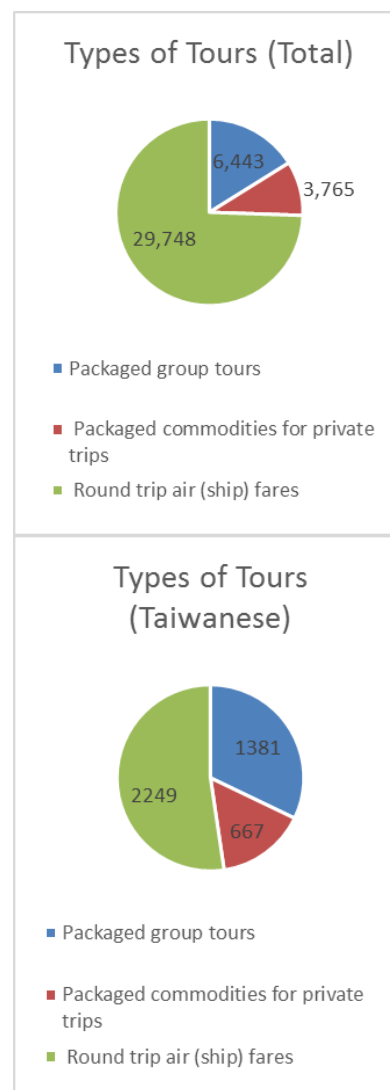
The destinations are as follows.



Source: Japan Tourism Agency, 2016

FIG3: Destinations of Visitors to Japan (Total) / Destinations of Visitors to Japan (Taiwanese)

Comparison of these data indicated that Taiwanese tend to prefer Hokkaido and Okinawa over other cities compared to visitors from other countries to Japan. On the other hand, Taiwanese tend to prefer packaged group tours (32.1%) compared to all visitors (16.1%). This is due to the fact that almost all Taiwanese visit Hokkaido in packaged group tours. In contrast thereto, there is recently a gradual shift from packaged group tours to private trips among Taiwanese visitors to Okinawa.



Source: Japan Tourism Agency, 2016

3. Results of interviews made in taiwan

Interviews were conducted from February 14 to 16, 2017 to collect on-site voices about the current situation. The interviewees were employees at ANA Taipei Branch, OTS Taipei Office, and the Okinawa Convention & Visitors Bureau Taipei Office. The following was found through the interviews:

- Regarding demands of air transportation, there are no declines in prices of existing air routes, indicating that there are no cannibalization effects of LCCs. Accordingly, the increase in the number of tourists is due to developments in new demands.

- Lack of domestic beach resorts attracts Taiwanese to Okinawa which is not far off from their own country. Particularly, those who actually want to hold their wedding at resorts such as Hawaii or Guam tend to choose Okinawa considering reasonable costs and travel distance.

- Taiwan and Japan have agreed on the mutual recognition of driver's licenses in 2007, and people are not required to acquire International driver's licenses for driving in Japan.

- More people tend to choose private trips over packaged group tours since they can use rental cars.

- Japan is a more stable destination when compared to China or South Korea, and Japan is considered to be safe, secure, and hygienic.

- More people tend to travel in groups of families, including three generation families.

On the other hand, the following problems surfaced:

- There are large seasonal differences, and accommodations are particularly expensive in July and August.

- Accidents are apt to occur with rental cars due to differences in customs.

- The infrastructure in Okinawa including signs in Chinese is insufficient compared to other cities in Japan.

- Heavy traffic jams often cause delays when traveling around tourist sites.

4. Conclusion

The number of foreign visitors to Okinawa exceeded 8.4 million in 2016. This is a 130% increase compared to the figure in 2013, and while this is not a large number when compared to the growth in the number of foreign visitors to Japan as a whole, results are steadily expanding in view of the number of air routes (an increase from 35 routes/week in summer schedule 2013 to 55 routes/week in summer schedule 2016, and further to 64 routes/week in summer schedule 2017). On the other hand, the infrastructure in Okinawa is still insufficient; however, it is difficult to pay attention to foreign visitors only when considering domestic demands. The present study has surfaced advantages of Okinawa among Taiwanese and future issues to be considered. A multiple regression analysis based on a questionnaire survey will be made so as to enable feedback of these results to find clues to solve the above problems.

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Strengthen Vietnam-Italy Tourism: Towards A New Era

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ABSTRACT

Nowadays, thanks to the needs in recreation, leisure and travelling, tourism has become a promising important economic sector. For the market of developing countries in general and Asia in particular, tourism will not only bring economic development opportunities for the region, but also has implications for promoting the image and native culture, strengthening integration and promoting the friendship between the regions of the world. In recent years, travelling between continents has embarked on a potential phase, especially between Asia and Europe. A typical example is Vietnam and Italy. More and more people of these countries are interested in and have the intention of visiting the other one. In order to meet the need of high-demanding tourists and to tighten the tourism between two countries, new ways of planning and carrying out tourism business need inventing.

This paper shows the suggestion of establishing a partner ship between two countries and its tourist-supporting systems.

REALITY

According to Ministry of Culture, Sport and Tourism of Vietnam, of all the total number of international visitors to Vietnam, tourists in North East Asia have a large market share. For the European market, visitors from five Western European countries are exempted from visas (England, France, Germany, Spain and Italy) grew by 635 thousand compared to the same period in 2015. However, it is said that this new visa exemption policy for travellers from five European countries could boost tourism better if it was for longer than 15 days since it usually takes from 20 to 30 days to cover all the main sights in Vietnam. In 2016, only around 51,000 of 10 million foreign arrivals to Viet Nam were Italian nationals.

	December 2016 (estimate)	Accrued for 12 months of 2016	Dec. 2016 vs. Nov. 2016 (%)	Dec. 2016 vs. Dec. 2015 (%)	12 months 2016 vs. 12 months 2015 (%)
Total	897,279	10,012,735	95.8	117.9	126.0
By means of transportation					
By air	715,317	8,260,623	93.1	123.9	131.7
By sea	35,046	284,855	129.9	255.3	167.7
By road	146,916	1,467,257	103.8	86.5	97.7
By countries and territories					
Hong Kong	2,827	34,613	87.7	123.8	167.5
China	216,662	2,696,848	86.1	128.1	151.4
Korea	154,165	1,543,883	116.2	134.4	138.7
New Zealand	2,769	42,588	82.3	108.8	133.3
Spain	4,219	57,957	70.8	147.7	129.0
Russia	50,197	433,987	94.7	121.1	128.1
Italy	4,085	51,265	77.1	114.6	127.2
Thailand	27,643	266,984	102.1	95.1	124.4
Holland	5,164	64,712	83.5	108.8	122.2

Source: Ministry of Culture, Sport and Tourism of Vietnam

For Italy, the main source of international tourists comes from countries like Germany, Spain, France, Switzerland and United Kingdom. Intercontinental tourists only accounts for a slight market share since the barrier of visa procedure as well as the complication in political situation. Asian market share clusters on tourist of the countries which are on Italian visa waiver program like Japan, Taiwan and South Korea. Vietnamese tourists mostly come under business and visiting relatives model or students who are currently study in Europe travelling during break time.

TRENDS

In recent years, studying abroad is becoming more and more popular for Vietnamese students. The level and field of study are various and attribute mainly in the US, the UK, Australia and Japan. Italy is famous among Vietnamese students for culinary art, religious studies, architecture, fashion and art history. Besides, students who major in Italian language have the tendency to go to Italy thanks to student exchange programs between bilateral universities.

Recognizing the needs of Vietnamese students flows to Italy, many supporting systems have been released to provide help. The Italian Embassy in Hanoi, for example, has established an Office of Uni-Italia, the guidance association to academic study that provides assistance to Vietnamese

students wishing to go to Italy. However, these programs have their own weaknesses since the source of information is mostly based on materials like brochures and universities' website, which could sometimes be misleading and difficult for students to figure out the scenarios of studying abroad.

PROPOSAL

In combination of tourism and education, I propose a model called: "Campus Inspect". The model provides the opportunity for families who have the intention of sending their children to Italian universities to go to Italy and have a real and detailed look at the academic environment as well as at the culture of the country. Rather than just browsing the brochure or watching promotion videos, a trip to experience real campus atmosphere, physical facilities of the institution and the living pace of the city where students shall spend time studying, researching and emerging themselves as dweller will give them a more realistic scenarios, therefore, help them to make a better decision of choosing the university.

Beautiful cities like Venice, Milano, Florence, Rome and Naples are not only famous for spectacular sights, marvelous cuisine but also for high-ranked academic institutions. "Campus Inspect" is a double job. On the one hand, student shall have a throughout look about the university: from the location to physical facilities and teachers. On the other hand, they have a chance to contemplate the beauty of Italian cities, enjoy the cuisine and interact with local people.

REQUIREMENTS

Beside diplomatic effort between two countries on visa issues and other remarkable culture activities that take place every now and then to rise the interest between Italy and Vietnam, "Campus Inspect" requires the partnership between Vietnamese travel agencies and Italian universities as well as Vietnamese alumni and student association in each university.

Currently, a lot of Vietnamese travel agencies have established the partnership with students who are studying in big cities like Rome, Milan and Naples. However, the relationship is unofficial and passive so the efficiency is not high. A partnership among three sides for sure will be more stable and effective.

CONCLUSION

In the time of continuous integration and development, it is clear that a lot of steps and negotiation are to be made to strengthen the relationship between two countries – Vietnam and

Italy. I strongly believe that a combination between education and tourism is one of the most effective ways to promote the culture and image of the two countries. This will also be a step forward in linking different sectors of the economy, using the potential human resources and improving the spiritual well-being of the society.

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Planning of the Fuzzy Front End of Projects

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ABSTRACT

The initial stages of New Product Development (NPD) projects are known as the "Fuzzy Front End" (FFE); this is the messy "getting started" period. It is in the front end where the organization formulates a concept of the product to be developed and decides whether or not to invest resources in further development of an idea. The FFE begins with the initial search for new opportunities, through the formation of a germ of an idea to the development of a precise concept. The FFE ends when an organization approves and begins formal development of the concept. Traditionally, the decisions early on in the project life cycle are based on documents and presentations with little or no model-based analysis. We present a new approach for the FFE of new product development.

INTRODUCTION AND THE PROJECT FUZZY FRONT END

Innovation is a process that encompasses the course of events from the early stages of the product inception—with a lot of fuzzy ideas—to the final market launching stage of the new product. We distinguish between three phases of the innovation process [5]:

- 1) Front end,
- 2) New product development (NPD) process, and
- 3) Commercialization.

Only a minute fraction of innovative ideas materializes into new product development. During the preliminary stages, the innovative ideas are funneled; of 3000 ideas generated, only 14 new product development projects are launched and of these, only a single project will survive up to the stage of commercialization [6]. The funnel model was suggested to emphasize the selection among different alternatives during the innovation process reaching one coherent choice at the end of the funnel [7].

An inverse relationship exists between the level of uncertainty in the innovation process and the level of knowledge and information aggregated. As the process progresses the uncertainty level decreases while the amassed information (e.g., reports, design documents, schematics, etc.) increases. During the front end phase the uncertainty level is very high whereas the available information is very low. Therefore, efficient handling of the front end stage is of crucial importance [5].

In the innovation management literature, several terms are used to describe the front end of new product development, e.g., "pre-development" [2], "fuzzy front end" or "pre-phase" [4].

The fuzzy front end occurs while:

a) Discovering the project scope based on stakeholders' needs and expectations;

b) Defining the specifications to be designed such that they satisfy the requirements.

Consequently, the Fuzzy Front End stage is one of the most significant drivers of project success, and is the phase with the highest potential for optimization [5]. Well-defined projects cost less, take less time to execute, and operate better [1].

The FFE presents many challenges. Stakeholders' requirements need to be understood and formulated. In large systems it may often be impractical to model entire systems due to their sheer size and complexity. The alternatives are often manual, resulting in missed alternatives that may have been the best choice. Our challenge is to improve the way alternatives are discussed and selected.

MULTI-ATTRIBUTE TRADESPACE EXPLORATION

A "design variable" is a designer-controlled quantitative parameter that reflects an aspect of a design concept—typically, representing some physical aspects of a design. The "tradespace" is a mathematical vector space. Each point in this space represents a "design vector" comprising an enumerated set of design variables that, taken together, uniquely define a design or architecture. The vector provides a concise representation of a single architecture, or design. The entire tradespace spans the complete space of all potential design solutions. The expansion of this tradespace is the essence of innovation—a creative recombination to create a new system that never before existed.

Each point in the tradespace is associated with a dimensionless numerical value called the "value" or "benefit", which is a metric that captures the goodness of something to the stakeholders. Benefit metrics are specified by someone with knowledge of the need and/or use of the system, typically varying from zero (minimal acceptable) to one (most desirable).

The term "tradespace" was coined as a combination of the words "trade-off" and "playspace", where "trade-off" indicates the method of traversing the tradespace in search of the optimal boundary surface in the metric space termed the "efficient frontier". Optimality, in this context, is defined with respect to the value or the benefit. Movement along the frontier requires trading off one design variable (e.g., "risk") with another (e.g., "performance").

"Multi-attribute tradespace exploration" is the benefit-guided search for better solutions within the tradespace. This approach manifests the means for

investigating a multitude of design options, thus deriving information that will become the basis for decision making.

RESEARCH QUESTIONS AND HYPOTHESES

This section provides an overview of the experimental design, starting with research questions, the hypotheses and culminating in the “Experiment Results” where we report on the results of the experiment.

Due to the importance and critical impact of the Fuzzy Front End stage of the project, we examine the following questions:

- Q1: *Does Simulation-Based Planning improve the FEL process?*
- Q2: *Does the FEL process using Simulation-Based Planning increase the confidence level of the project duration?*
- Q3: *Does Simulation-Based Planning assist in developing a better understanding regarding the project goals and alternatives?*

This study focuses on the contribution of Simulation-Based Planning (SBP) at the Fuzzy Front End Stage of a project to: choosing an alternative, risk management, and work planning.

Specifically, the following hypotheses were tested in controlled workshops and field studies:

- H1: *Simulation-Based Planning assists in developing a plan for reducing the project risks.*
- H2: *Simulation-Based Planning assists in determining the LCC costs of the project and the schedule forecasting.*
- H3: *It is possible to create a shared understanding among project team members by using Simulation-Based Planning.*

RESEARCH WORKSHOP

A workshop was designed to test the impact of Simulation-Based Planning on the FEL process. The workshop was performed for each project participating in the research.

The participants in the workshops were asked to fill out questionnaires.

IMPLEMENTATION IN INDUSTRY

The workshop was implemented in four different beta sites: nine workshops were performed on nine individual projects, where the total financial value of the projects exceeded \$200M.

The sample included 102 participants, comprising 13 female and 89 male participants. Each participant took part in one workshop. Group sizes were 7–17 participants; 84% of the participants were experienced engineers. The age average was 44.3 and the average years of experience was 14.9.

Less experienced engineers highly evaluated the contribution of the workshop to their commitment to the project. (Nonparametric correlation, Spearman's rho, -0.3814.) Participants expressed satisfaction from the contribution of the workshop.

Statistical tests accentuate the contribution of the workshop in the following aspects:

- Development of a plan for reducing the project risk.

- Achieving a frozen detailed plan.
- Development of a better understanding regarding project goals and alternatives.
- Reaching consensus amongst team members regarding the project plan.

EARNED VALUE MANAGEMENT

Earned value management (EVM) is a technique for measuring project performance and progress. It has the ability to combine measurements of the project management triangle: scope, time and costs.

Essential features of EVM implementation include:

1. A project plan that identifies the work to be accomplished. The project is broken down into activities of relatively short duration.
2. Project schedule baseline plan: the original project plan.
3. A valuation of planned work, called Planned Value (PV), which is measured in units of currency (e.g., dollars or Euros) or in labor hours.
4. Pre-defined “earning rules” (also called metrics, e.g., 0/100 - no credit is earned for an element of work until it is finished, 50/100, etc.) used to quantify the percentage of completed work, called Earned Value (EV).
5. The final step is to measure the project progress during its execution. When activities are started or completed, EV is accumulated. This is typically done at regular intervals (e.g., weekly or monthly). However, EV can also be accumulated in near real-time, when work elements are started/completed. In fact, waiting to update EV only once per month (simply because that is when cost data are available) only detracts from a primary benefit of using EVM, which is to create a technical performance scoreboard for the project team.
6. Calculation of:
 - Project schedule overrun: defined as PV/Baseline Plan.
 - CPI (Cost performance index) when $CPI = (EV/AC)$. CPI greater than 1 is good/favourable (meaning that the project is under budget):
 - ❖ < 1 means that the cost of completing the work is higher than planned (bad);
 - ❖ $= 1$ means that the cost of completing the work is right on plan (good);
 - ❖ > 1 means that the cost of completing the work is less than planned (good);

After completing the FEL workshop and determining a chosen design alternative and work plan, we accumulated EVM data of the projects in order to monitor cost variance and schedule overrun. EVM data were gathered periodically each quarter during a period of four to five quarters.

The project population on which the FEL workshop was implemented exhibited a significantly better performance than an average

project in company 'R' in terms of Schedule Overrun and cost variance; in particular, the schedule variance is 5% better and the cost variance is 7% better.

SUMMARY AND CONCLUSION

The FFE stage is one of the most significant drivers of project success. Projects which are well-defined from the very beginning cost less, take less time to execute, and operate better [2].

We presented a new approach based on a workshop and tools that provide an enhancement of the decision-making process when the design of a new product is considered. The workshop is based on an innovative decision support system used to obtain immediate feedback regarding the effectiveness of various tradespace alternatives. The tools are used by the workshop participants for simulation-based planning of the master Gantt of the project which synchronizes the various disciplines and establishes their commitment to meet the major milestones of the chosen alternative for the project execution. The simulation tool employed for simulation-based planning enables the exploration of the existing tradespace of the project execution while promoting decision making which is critical at this fuzzy stage as related to the risk level of the project.

In addition to these tangible outcomes, the workshop also offers more qualitative advantages. During the workshop the situation is created that all the discipline leaders as well as other stakeholders are assembled in a joint location. This results in the opportunity for quick online communication and immediate feedback, sharing and cross pollination of ideas between the participants, all of which encourage the buildup of relationships and team spirit and facilitate reaching a consensus amongst the team members. Consensus does not mean that everyone always agrees, but it does mean that everyone agrees to implement a decision because they believe that their reservations were heard and considered and that the decision is the best one possible under the circumstances.

Most importantly, a shared understanding is developed as the whole project team is exposed to the whole project and every team member can learn the tasks and concerns of all other team members.

The workshop was successfully implemented on a variety of projects in the industry with an overall budgetary scope exceeding \$200M. All the projects that participated in the study exhibited an improvement in the success criteria. Participants expressed satisfaction from the contribution of the workshop. Moreover, continuous monitoring of the projects for over a year after executing the FEL workshop shows significantly better performance of these projects in terms of cost and schedule variance as compared with the average performance within the company.

The results obtained in our study show that the investment of time and resources in conducting the workshop at these early stages of the project contributes significantly to the robustness of the project work plan and boosts the development of a shared understanding amongst team members and other stakeholders.

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The failure of transport megaprojects: lessons from developed and developing countries

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ABSTRACT

Transport megaprojects are essential to economic growth and development, yet attract high risks and are prone to failure. Projects fail for a number of reasons and when they do, their impacts are severe. This is especially true in developing countries, where the cost of a project is typically far higher than those in developed countries, whose GDPs are much higher in relative terms. The purpose of this paper is to investigate the failures of megaprojects in developing and developed countries to establish as basis for comparison in the reasons for project failure. The study finds that projects in developing countries tend to be poorly justified in feasibility studies and under-resourced in operations, making them particularly prone to high failure rates.

BACKGROUND

Building and maintaining infrastructure is critical to the functioning of any country's economy and is also potentially economically transformative. Transport ensures everyday mobility of people and is crucial to the production and distribution of goods. Adequate infrastructure is therefore a fundamental precondition for transport systems [1]. When transport systems are efficient, they provide economic and social opportunities and benefits that result in positive multiplier effects such as better accessibility to markets, employment and additional investments. When transport systems are deficient in terms of capacity or reliability, they can have an economic cost such as reduced or missed opportunities and lower quality of life. At the aggregate level, efficient transportation reduces costs in many economic sectors, while inefficient transportation increases these costs [2]. Despite the necessity, transport infrastructure projects however frequently fail on one level or another. These may be time or budget overruns and, frequently, even when projects may be considered as a technical success, they are often financial failures [3]. In developing countries, the provision of transport infrastructure is regarded as even more critical than developed countries, given that it can either spur or constrain overall development within the country. As megaprojects are typically regarded as risky and prone to failure, investment in transport infrastructure needs to be a carefully considered decision, particularly in view of competing pressure on scarce resources in developing countries.

There are many reasons why a major infrastructure project may be considered to have 'failed'. These include:

1. Build failure – infrastructure not completed.

2. Build is late.
3. Build is over budget- average price overruns on megaprojects are 52%
4. Build is complete but does not function correctly
5. Build is complete (& works) but does not deliver expected benefits (within the predicted timescale)
6. Build is completed on time, but unpredicted external events (e.g. economic / trade recession) prevent the realization of expected benefits [4, 5].

Fiedler, Kostka, Anzinger and Schuster [4] suggest many causes of such failures, each of which may apply to any or all of the above, these include:

1. Incorrect specification.
2. Incorrect specification.
3. Poor project management / planning.
4. Scope creep.
5. Governance (e.g. politicians instead of experts 'sitting in driving seats').
6. Pioneering risks.
7. Optimism bias.
8. Hidden (& perverse) incentives for planners and promoters.
9. Unforeseeable change in legal requirements (e.g. change in fire-protection technology regulations)
10. Unpredicted currency fluctuation

It is true that such failures can occur in developed as well as developing countries. The key issues are perhaps: what is the relative impact of such failures and what is the relative probability of them occurring? In terms of the former, simple economic logic would suggest that developed countries have more capacity to absorb failure than developing ones. An illustration of this is provided by Germany's Jade Wesser Port, Wilhelmshaven [6], which opened in September 2012 but as of January 2015 had failed to attract any scheduled liner calls and was regarded as a 'white elephant' [7]. The port cost 350 million Euros (\$413 million) to build which was only 0.05% of Germany's GNI of 672.84 billion Euros [8], so it was a relatively small risk. German GNI per capita in 2013 was \$45,620 PPP compared to lower middle-income (developing) economies, which have a GNI per capita between \$1,026 and \$4,035 [9]. Therefore a similar investment would represent a risk of between 11 and 45 times the magnitude for a developing country.

In terms of the latter, according to Ansar, Flyvberg, Budzier and Lunn [10], infrastructure projects in developing countries often lack resilience as well as

the supporting technical capability and are therefore more vulnerable to risks. Further, Jenkins and Savage [11] found that projects in developing countries are likely to suffer from over-optimistic expectations as well as being dogged by poor planning partly due to skill shortages and the tendency for key positions being occupied by political appointees.

Case studies will be used to consider these issues and suggest strategies to ameliorate them. Five case studies are considered, two from developed countries and three from a developing country, i.e. South Africa. The purpose of presenting the contrasting case studies is to illustrate the relative impacts of the failure of transport megaprojects on the various economies.

PRESENTATION OF CASE STUDIES

A. Berlin Brandenburg Airport

The wall that partitioned Berlin started to crumble in 1989 and German reunification took place the following year [12]. Between 1949 and 1990, Germany was divided, as the Federal Republic Germany (FRG), or West Germany, and the German Democratic Republic (GDR), known as East Germany. Berlin was also divided. By the time of German reunification in 1990, it was clear that Berlin would need a new airport [12]. In 1996 a decision was made to develop Schönefeld Airport (the airport that, between 1949 and 1989, served as the main airport for the GDR and East Berlin) with the subsequent closure of Tempelhof and Tegel airports in Berlin [13]. It was anticipated that the new airport would serve not only the needs of Berlin but also be competitive with other major German and European airports [14]. Work on the new airport, to be called Berlin Brandenburg International Airport (BER), was due to take place in 2003 but due to complaints against the expansion of Schönefeld by the public, the start-date was delayed [15]. BER was to be developed by the private and public sectors, but private investors withdrew from the project in 2003 [16, 17]. BER was scheduled to open 2012 [18] but, by 2014, it had not opened and it was revealed that, by the time it opened, the new airport would be too small for the anticipated number of passengers it would serve [19]. By the start of 2017 the airport had still not opened, with new technical faults identified, requiring the alteration of 1,200 doors to meet fire-safety regulations [20]. It was also reported that the light in the terminal building couldn't be switched off. Major problems have dogged the airport's construction, such as an incident focused on the allegations of a whistle-blower and engineering worker being poisoned after drinking a cup of coffee [21]. The former spokesperson for the airport, Daniel Abbou, was sacked for calling the project 'shit' and declaring that 'no one can guarantee' that the airport will ever open [22]. With an initial cost estimated at 1.7 billion euros, and still having not opened, the likely cost is at least 6.5 billion euros [22]. In relation to the BER project, Fiedler and Wendler [13] have identified a vicious spiral of governance problems that beset the airport as being fundamental to the delays. They further claim that contractors and managers did not have

the necessary expertise, the possibility of failure was not taken seriously enough, the management had to cope without a general contractor and innumerable change requests were made. The result, they state, has been chaos management. Germany is a prosperous nation with a total GDP (2015) of US\$3.363 trillion [23]. Set against the cost of eventually developing BER (approximately US\$7 billion), whilst this is not an insignificant amount, it only represents 0.002% of the country's GDP. If the project had been located in a developing country, such cost over-runs would potentially be crippling for the country

B. JadeWeser Port

JadeWeser Port is located at Wilhelmshaven at the Jade Bight, a bay on the North Sea coast of Germany. Following many years of planning construction took four and a half years leading to its commissioning in September 2012. It has good quay capacity and a natural water depth in excess of 18m, meaning that container ships with a length of 430m and 16.5m draught can use it at any tide. It was built following extensive feasibility studies with the aim of producing important economic and social benefits including employment creation, multiplier effects, enhanced links to the hinterland as well as local and state tax revenues [24]. This view was supported by the forecasted growth in container shipping, the increase in ship size and capacity constraints at neighbouring harbours. The combination of these factors confirmed the viability of the project despite sacrifices on environmental grounds in form of congestion, pollution and noise emission.

Despite the extensive research and planning as well as the massive investment (€950 million) [25], as of January 2015 JadeWeser had failed to attract any scheduled liner calls and the port was regarded as a 'white elephant' [6]. There may have been many reasons for the 'failure' but according to Andersen, the port manager, the main problem was one of timing, because the port 'went live' in the wake of the 2008 financial crisis broke and its impact on world trade [5].

The port has now started to attract business and handled 400,000 TEUs during 2015, a 566% improvement on 2014 [26]. There appear to be two reasons for this success a) the recovery in shipping volumes and the use of bigger ships that cannot use neighbouring ports and b) the collapse of a container bridge in Bremerhaven port leading to major operating restrictions and the diversion of vessels to JadeWeser. Although these volumes fall well short of the planned 2,700,000 TEU per annum, they suggest that the new port has survived its disastrous initial period and that the project may have a happy ending.

The fact that the port was able to weather the initial heavy losses where the annual balance sheets showed losses of around 40 million euros for both 2013 and 2014 [5], is probably due to its location in Germany, a wealthy developed country, with financial support from the states of Lower Saxony and Bremen. Had it been located in a developing country it seems less likely that the project could have survived.

C. Gautrain

Gautrain is a high speed railway service that serves the city of Johannesburg, primarily linking the economic hub of Sandton to the city's main airport, O R Tambo. Additional linkages include the CBD as well as the other major metropolitan area in the Gauteng province, Tshwane. The building of the Gautrain was announced in 2000 by the former Gauteng Premier Mbhazima Shilowa [27]. The political nature of the project was to such an extent that the Gautrain was known, in the initial years, as the Sam Shilowa express; a name which was only decoupled from the project on the resignation of Mr Shilowa from the governing party, the African National Congress. The initial aims of the Gautrain project included the relief of congestion on Gauteng's major routes between Pretoria, Johannesburg and Ekurhuleni [28], stimulating development, growing the economy and creating job opportunities, changing the urban structure, assisting the development of Small and Medium Enterprises (SMEs) and contributing towards Black Economic Empowerment [29], amongst others. The project was initially conceived in 2002 as costing R7 billion, which by 2005 had been revised to R20 billion [30] and are currently estimated to have cost between R26 billion [31] and R30 billion [32]. Delays at the start of the project meant that construction contractors lost an estimated R0.5 billion in revenue [33]. Ridership figures were also not realized, with the initial figures of 100 000 passengers per day, rising to 120 000 by 2010 [34]. These figures are currently estimated at 62 000 passengers per day [27]. Other objectives have also not been met. Congestion on major routes in the province has not been reduced [35] and land values had increased at some but had not been affected at most stations [27]. Despite qualifying as a failed transport megaproject (the build is complete and it works but does not deliver expected benefits), the Gautrain project is considered a success within the country and plans are currently underway to expand the system [27]. Given that the capacity of the system is currently constrained, the project experienced major time and budget overruns, ridership numbers were not met and the expected economic benefits were not realized, expansion of the current system should be questioned, particularly where the Gauteng GDP (estimated at approximately R800 billion per annum) [36] and expansion plans that could total approximately 5% of this.

D. Coega IDZ

The Coega Industrial Development Zone (Coega IDZ) is located in the Eastern Cape province of South Africa and is adjacent to the deepwater port of Ngqura. The 11500 hectares of land was made available to develop a transshipment hub with the port linking the important eastern and western trade routes to Africa [37]. The South African government initiated a feasibility study in 1996 to establish an IDZ around the port of Coega [38]. This led to 80 individual reports combined to prove the viability of the Coega project [38]. Following the setting and development of policies to guide the design and implementation, the Coega IDZ was established in 1999 with 14 zones commissioned to

service light to heavy industries, open to investor's abroad and local [38]. The South African Cabinet appointed an implementing authority as well as the Coega Development Corporation (CDC) (a state owned company) to develop and operate the Coega IDZ. The area earmarked to boost the eastern Cape economy took some time to get off the ground as port of Ngqura only started to operate commercially in 2009, 7 years after construction started [37]. At the start of the Coega IDZ development, there were projections made that from 2002 – 2010 an estimated 27000 jobs would be created during construction, with 13000 permanent jobs expected to be generated countrywide [38]. The estimated jobs were however only realised in 2013. The delay in establishing the road and rail hinterland connections completed in tandem with the port completion, delayed investments to the area. Investors were reluctant to finalise investments, with some like the aluminium smelter from Pechiney taking over 4 years to come to a final decision [39]. Some authors however referred to IDZ's usually maturing around this age, and that there is a stop/start tendency expected until world-class infrastructure is established [40, 41, 42]. Additional factors that contributed to the delay and cancellation of the numerous projects to the area was the global recession from 2008 and the infamous SA energy crisis [43]. However since the operations of the port to date the Coega IDZ has attracted over US\$4.1 billion in investments that led to the setup of several organisations (including multinationals) across the 14 zones [37]. Despite the investments into the region, the estimated 8% growth from the Coega IDZ development however has not materialised, with a mere 4.8% reported during the 2015 Eastern Cape economy [44]. The economy largely dependent on the automotive and agro processing industry has failed to assist with widespread economic reform, that has been listed as a common issue with IDZ's. The Coega IDZ, at most designed to attract FDI, has struggled to live up to its potential and has fallen victim to the overestimation of its success.

E. King Shaka International Airport (KSIA)

KSIA is an international airport built to service South Africa's third largest city Durban, it opened in May 2010. The airport was built to replace the existing Durban International Airport. Plans to move the airport to the new site were proposed and shelved on numerous occasions in the 1970s/80s [45]. In the 1990s, the plan was reprioritized and were overhauled to include a trade port [45]. Although Durban International Airport adequately served the domestic market, the runway was considered too short for a fully laden Boeing 747 to take off and, in addition to the hub-and-spoke policy which favoured OR Tambo in Johannesburg, meant that low international passenger numbers were cited as a major reason for the move. The lack of developable land around the existing airway strengthened the argument that regional ambitions were constrained [46]. The new airport was built, lengthening the runway from 2.4 to 3.7 km, expanding the passenger capacity from 4.4 to 7.5 million and the passenger terminal building floor

area from 30 000m² to 102 000m² [47]. The previous airport was decommissioned and plans to redevelop this as part of the city's seaport expansion have been placed on hold until 2032 [48]. Since the opening of KSIA, it has become evident that, firstly, the build was not warranted, as the previous airport had been upgraded at a cost of R158 million in 2005 [49] and international passenger numbers have not materialised. KSIA reported a total of 288 188 international passengers for the 2015/16 reporting period, a construction cost of R9bn, King Shaka's loss for the 2016 financial year is approximately R1bn" [51] (SA Commercial Prop News, 2016)]. In addition, it was determined that the airport had been built without a feasibility study, with the CEO of ACSA implying that this had not been necessary as plans to relocate the airport dated back to the 1970s. [51]

CONCLUSION

Transport infrastructure is critical to any economy, but more so in developing countries where it is often under-developed and therefore a constraint to the mobility of people and the movement of goods. It is therefore imperative that, transport infrastructure must be sufficient to facilitate trade and socio-economic development. Transport infrastructure projects tend however to be massive, so-called megaprojects, implying an immense commitment of resources. Megaprojects are considered to be high risk endeavours and need to be carefully considered before they are started. Evidence from megaprojects around the world suggests that they incur a high failure rate. Nine out of ten megaprojects go over budget [3], time overruns are a perennial problem [52] and an estimated 65% fail to meet their business objectives [53]. There are numerous reasons for this, as was identified by Fiedler, Kostka, Anzinger and Schuster [4] and described in the introduction. When considering the case studies in this study, it would appear that there were considerable differences between the reasons for failure of transport megaprojects in developed and developing countries. Berlin Brandenburg Airport appears to be a failure, largely because of governance issues related to scope creep and poor skills management. In the case of JadeWeser Port, the failure appears to be largely attributable to timing; the project is appropriate but the global financial crisis meant that the port could not initially attract sufficient traffic. The same cannot however be said of the three South African transport megaprojects. The Gautrain functions as a successful project, but does not meet the objectives, particularly ridership figures, set out at the beginning of the project. As this is largely associated with capacity constraints within the Gautrain system, this suggests incomplete specification prior to the onset of the project, however the politically driven nature of the project may also have contributed to the initiation of the project. Similarly, the Coega IDZ, which should

period, zero regional passengers and 4.63 million domestic passengers [50]. The airport was also massively over budget. From initial projections of R800 million, the project is estimated to have cost closer to R8bn as well as a further R2bn city investment [46]. Although the Airports Company South Africa (ACSA) reported that the airport reported a profit in R93 million in 2016, "accounting for interest on the loans to fund the cons

have achieved radical economic transformation in the province, has also not achieved its aims, primarily due to overestimation of the benefits in the planning phase and a failure to operate the project at appropriate levels, suggesting inappropriate skills specifications and perhaps a lack of political will. The KSIA project is unique in that it was built without a feasibility study at all, again suggesting that the need for a higher specified airport may not have been properly identified, hence the airport is unable to live up to expectations.

It is apparent from the developing world case studies that projects appear to be motivated from sources other than actual identified need. The identification of the Gautrain project as the Shilowa Express [54] suggests that projects are sometimes driven by politics and the need for massive expenditure may thus be overstated. The projects in developing countries also appear to be beset by problems in the execution phases of building as well as operations. Cost and budget overruns during the building phases appear to be normal and, whilst these are to be guarded against, are not unusual globally. The problems associated with operations suggest that, whilst the building phase may be appropriately resourced, the tendency to underestimate ongoing operations or overestimate the benefits is prevalent in developing world megaprojects, from a resource perspective. As the relative cost of megaprojects in developing countries is so much higher than in developed countries, the implication is that extra caution needs to be taken to ensure that a full risk assessment at the design stage is completed appropriately and that good governance is achieved during the project to minimise at least some, but not all, risks.

There are numerous future directions for this research. It is suggested that further case studies within the southern African region be conducted to determine whether the similarities identified in this research exist across countries and sectors. It is also suggested that the research be expanded to determine the opportunity costs associated with failed megaprojects, as this should be critical in the decision making process on megaprojects in developing countries, thereby ensuring that future investments are aimed where needs are the highest and that resources are allocated to maximise benefits.

REFERENCES Available on request

Delivering the required supply chain management skills in developing economies

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ABSTRACT

Supply chain skills are in notorious short supply in South Africa and it is estimated that this situation has not improved in any meaningful way over the past few years. The purpose of this paper is to review the skills sets typically required by logistics and supply chain organisations in Southern Africa and to assess the appropriateness thereof, given the skills required to facilitate economic growth and development in developing economies. The results of two surveys, conducted in 2012 and 2016, were compared to determine whether practitioners believed that skills requirements in the industry were being met, had changed over time and what could be done to meet resource demands. The findings indicate that current educational programmes are ill-equipped to meet the complex demands of modern supply chains. This study is believed to be the first that provides empirical evidence of the shortcomings of the current programmes and suggests some interventions to address these in the future in order to create the types of supply chains that can create and enhance sustainable economic growth in developing economies.

INTRODUCTION

Effective supply chains are critical to the functioning of a country's economy. Supply chains move goods in and out of the country as well as within the country. Well run supply chains can promote economic growth and development, yet the converse is also true; poor supply chains can actually inhibit the economy. Where countries have highly developed supply chains, it is able to trade many goods at low costs [4]. If businesses and customers are able to get goods quickly, this tends to result in economic growth. Poor supply chains, in terms of poor infrastructure (ports, roads, rail, etc.), poor processes or poor skills to manage and operate the supply chains can have far reaching effects on the country's economy. That logistics costs typically comprises a huge percentage of a country's GDP (the US was 7.85 in 2015 [9], whilst South Africa was an estimated 11.7% of GDP and 53.6% of transportable GDP for the same period [7] provides an indication of the magnitude of the impact logistics and the supply chain can have on the economy. As supply chains provide the means whereby goods move in, out and through the economy, it thus becomes critical that they are run efficiently and effectively. Despite the recognition of the importance of supply chains, they remain difficult to run effectively, partially because of their multi-faceted, global nature and partially because they are so prone to change and shock. It is therefore critical that supply chains are resourced with appropriate skills if they are to be successful. This is however regarded as problematic.

Globally employers are finding it increasingly difficult to find suitable talent and according to the [13] more employers (53%) are training and developing existing employers or changing existing work models (19%) to overcome their talent shortage. This is particularly important in the supply chain industry. Kisperska-Moron [10] already stated in 2010 that supply chains would require a different skills in the future as excellence is required from the beginning of the start of supply chain operations as there is no time to improve performance during its lifetime, which he regards as usually not more than 5-7 years. He finds that highly educated personnel are required even at the operational level due to the extremely high level of customer service required, good communications skills required for efficient coordination, good skills in fully automated information systems, critical analysis, adaptability to changing requirements and an open mind.

According to Mahler [12] supply chain managers should have innovative skills to effect sustainability in supply chain network. The amplified complex nature of global supply chains necessitate a change in the required skillset of practitioners. Not only must practitioners have adequate hard analytical skills, they must also be equipped with sufficient soft skills such as communication, leadership and problem solving. Supply chain managers must possess competent skills in operations research, statistical analysis, supply chain design and engineering and data analysis. They must further have a formidable emotional intelligence to manage relationships with internal and external customers and suppliers. The discipline of supply chain management has rapidly evolved over recent years compelling qualifications to become much comprehensive [16].

In South Africa, supply chain positions are notoriously difficult to fill. In 2008, the Barloworld Logistics *supplychainforesight* report [1] indicated that the perennial skills shortage had severe impacts on the supply chain. By 2012, their report [2] indicated that the supply chain skills shortage was the one of the top five constraints to South African supply chains and the single biggest constraint on competitiveness. In the latest report [3] this is still indicated as a major constraint, with one third of the survey's respondents indicating that the skills shortage was not being addressed appropriately in their environments. This is reiterated in the Logistics Barometer [7] where it is stated that the "looming threat is that the future South African supply chain generation is at risk of losing (their) advantage due to sub-standard basic education, underperforming higher education, and lack of practical knowledge- and skills transfer in the work environment." It thus becomes evident that, although the supply chain skills shortage has been recognised and documents for a long time,

the skills shortage remains as critical as ever, suggesting that training interventions are not meeting the requirements of the industry. As stated by [21], "It's not just that we are short of people with skills, but we are short of people with the right skills: people who link their functional role and activities to the needs of the supply chain within which they operate."

According to the latest Manpower Group [13] global talent shortage survey, employers indicated that the top reasons why positions are not filled are: lack of available applicants (24%), lack of hard skills (19%), lack of experience (19%), looking for more pay (14%) and lack of soft skills (11%). The importance of soft skills has been highlighted in numerous studies globally and summarised in previous work by the authors [8]. These works suggests that soft skills are critical to the success of supply chains. The authors also find that companies understand that the most critical skills to the supply chain are all soft skills and technical or hard skills are all rated of lower importance in the ranking of importance of these skills. This indicates that simply training people in the traditional hard skills required to do their jobs, will not meet the supply chain needs of the future.

In South Africa, supply chain training is generally provided by traditional academic universities, technical universities, FET (further education and training) institutions and in-house training initiatives provided by companies involved in the industry. A brief review of some of the current training offerings reveals that traditional academic programmes [14] [15] [18] [19] tend to be largely focussed on technical skills. Similarly, programmes offered by universities of technology also tend to focus their programmes on technical skills [5] [17] [20]. The identification of soft skills as critical to supply chain performance and the general focus of the training offerings in South Africa suggests that there is a mismatch between supply chain requirements and training for the supply chain. The implication is that supply chain training needs in the country need to be reviewed in order to develop new training models that are capable of meeting the future supply chain needs in the country.

RESEARCH METHODOLOGY

The objective of this paper is to review the skills sets typically required by logistics and supply chain organisations in Southern Africa and to assess the appropriateness thereof, given the skills required to facilitate economic growth and development in developing economies.

To determine any trends or possible changes to the current logistics skills requirements, as perceived by practitioners in South Africa, the results of two surveys, conducted in 2012 and 2016 at the Annual SAPICS conference (Association for Operations Management in Southern Africa), are compared. The SAPICS conference is recognised as the leading logistics and supply chain management conference in Southern Africa. The approach used was convenience sampling, whereby responses were obtained from SAPICS attendees. For the 2012 survey, a two-page self-administered questionnaire was used, and for the 2016 survey, a web-based survey was utilised to solicit responses. In both questionnaires, respondents were requested to rate the perceived importance of

the selected skills items typically required by logistics and supply chain organisations on a four-point Likert-type scale (1 = *to no extent* and 4 = *to a large extent*). The surveys were completed by 155 respondents in 2016 and 200 in 2012. The response rate for both years is approximately 17%, which was deemed adequate for the purposes of the study.

Although the number of respondents could be viewed as a shortcoming of the study the researchers, however, are of the opinion that the specific sampling pool was enabled the obtaining an acceptable number of responses from supply chain professionals which could be interpreted as adequately representative of the practitioners' perspective.

RESULTS

The results of the two practitioners' surveys were analysed and compared to determine whether there has been any shift in the skills requirements as perceived by supply chain managers. The majority of the respondents are from the transport, storage and communication and manufacturing sectors, 60.6% and 66.5 for 2016 and 2012 respectively. For both surveys, just over 76% of the respondents were middle and senior managers, suggesting that they can be viewed as the decision-makers within their respective organisations. The average years of work experience of all respondents in both surveys was over 16 years, with the average experience in the area of logistics and supply chain management being over 8.5 and 10 years for 2016 and 2012 respectively. Over 90.5% (2016) and 95% (2012) of the respondents had completed tertiary qualifications.

The survey data was analysed using SPSS for Windows version 23. The reliability of the measurement scale was evaluated to determine the internal consistency. The overall Cronbach's α value for all the skills items was 0.950 and 0.921 for 2016 and 2012 respectively, which indicates that the surveys are very reliable [6]. In both survey's respondents were asked to indicate their agreement with a list of 30 logistics and supply chain skills managers consider as important when recruiting employees [8] [11]. The mean and standard deviation were calculated to derive the descriptive profile of the skill items, thus establishing the ranking of the skills in terms of their perceived importance. Table 1 depicts the descriptive statistical results of the skills items for both years. Whereas the order of the top ten ranked skills changed from 2012 to 2016, the top ten skills were consistent in both years. The top ten highest ranking skills comprise mostly 'softer' (i.e. Behavioural/ Interpersonal) and very broad management skills (i.e. General Management). In the 2016 survey the 'Ability to see the big picture' followed by 'Customer focus' are the highest ranked Logistics Awareness skills which feature in the top ten list.

TABLE 1: Ranking of sills requirements (2016/2012)

2016				2012			
Rank	Skills Item	Mean	Std. Dev	Rank	Skills Item	Mean	Std. Dev
1	Problem solving	3.67	.563	1	Ability to plan and prioritise	3.70	.518
2	Ability to see big picture	3.64	.558	2	Customer focus	3.68	.516
3	Team work	3.63	.550	3	Ability to see big picture	3.66	.500
4	Communication skills	3.62	.588	4	Business ethics	3.63	.530
5	Ability to plan and prioritise	3.61	.623	5	Team work	3.60	.558
6	Business ethics	3.60	.625	6	Problem solving	3.60	.588
7	Ability to think outside the box	3.57	.639	7	Ability to think outside the box	3.56	.521
8	Decision making	3.54	.610	8	Communication skills	3.55	.565
9	Customer focus	3.53	.653	9	Decision making	3.55	.575
10	Business process improvement	3.46	.632	10	Business process improvement	3.51	.607
11	Cross-functional coordination skills	3.45	.682	11	Cross-functional coordination skills	3.45	.613
12	Leadership	3.39	.675	12	Inventory management	3.42	.657
13	WHS/MH management	3.37	.651	13	WHS/MH management	3.40	.697
14	Supply chain cost knowledge	3.34	.732	14	Supply chain cost knowledge	3.39	.698
15	Inventory management	3.33	.711	15	Demand forecasting	3.36	.734
16	Motivation skills	3.33	.682	16	Change management	3.34	.614
17	Knowledge of the industry	3.32	.719	17	Leadership	3.32	.681
18	Negotiating skill	3.31	.770	18	Spreadsheet abilities	3.31	.700
19	Change management	3.30	.801	19	Quality management	3.30	.770
20	Demand forecasting	3.30	.767	20	Knowledge of the industry	3.27	.656
21	Quantitative and/or statistical skills	3.28	.752	21	Transport management	3.25	.750
22	Quality management	3.26	.727	22	Supply chain design	3.25	.730
23	Transport management	3.26	.737	23	Negotiating skill	3.24	.706
24	Supply chain design	3.24	.750	24	Motivation skills	3.23	.607
25	Procurement/Purchasing	3.20	.762	25	Procurement/Purchasing	3.22	.788
26	Reverse logistics	3.20	.744	26	Reverse logistics	3.18	.739
27	Spreadsheet abilities	3.20	.780	27	IT skills / software knowledge	3.15	.709
28	IT skills / software knowledge	3.14	.754	28	Laws & regulations	3.11	.767
29	Laws & regulations	3.09	.774	29	Quantitative and/or statistical skills	3.11	.698
30	Green logistics/ environmental issues	3.05	.756	30	Green logistics/ environmental issues	3.08	.734

Figure 1 represents the work experience (from both years) respondents believe is required to fill positions in the three main managerial levels. Although it is indicated that work experience is important at all levels, it also shows that a higher emphasis is placed on work experience than before, particularly so at tactical and strategic level. This appears to indicate that existing role players do not have sufficient experience to be able to fulfil requirements of their existing positions and that more practical experience is required to provide them with the skills they need to perform their functions in the supply chain.

Fig 1 Perceptions of required work experience

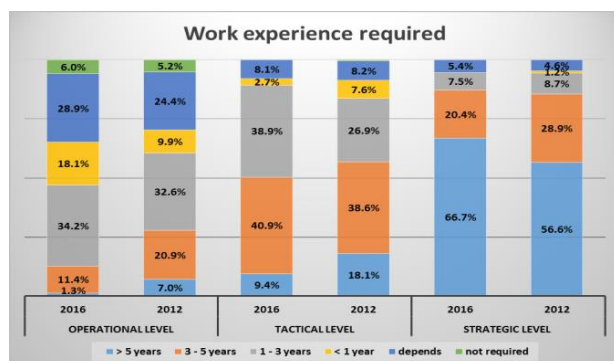
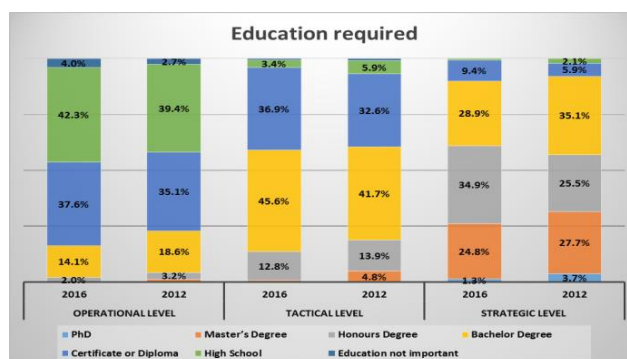
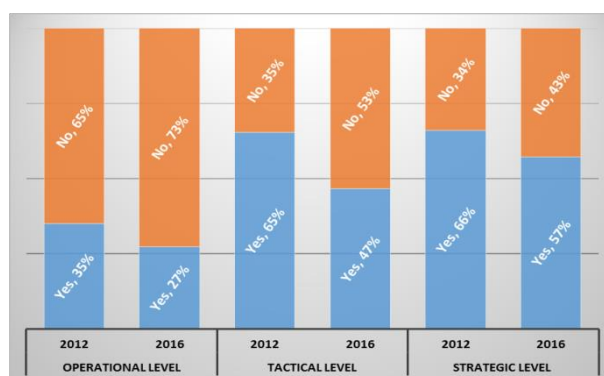


Figure 2 represents the qualifications respondents from both surveys believe are required to fill positions in the three main managerial levels. The results shows that some level of education is required at all levels, with the requirements for tactical and strategic level positions increasing, with tertiary education becoming more vital. The 2016 results also indicated more emphasis on post graduate qualification requirements for strategic positions. Similarly to work experience, the results indicate that existing qualifications are insufficient to deliver the skills that are required for job performance and companies are mitigating this by requiring higher qualifications.

Fig 2 Perceptions of educational requirements



Both practitioners' surveys indicated that businesses are finding it particular difficult to fill positions at the higher management levels, i.e. tactical and strategic positions. The majority of the respondents in 2016 clearly indicated the relative ease of filling operational level (73%) and tactical level (53%) positions, however an average of 57% indicated that it was difficult to fill strategic level positions. It would seem that for all three managerial levels, positions are becoming somewhat less challenging to fill as previous trends indicate. Despite this apparent trend, the results indicate that supply chain organisations struggle to find appropriate leadership for their organisations. Figure 3 indicated the difficulty to fill managerial level positions over the



two year period.

Figure 3 Difficulty in filling positions

Not only are practitioners finding it difficult to find suitable candidates to fill tactical and strategic level positions, respondents generally indicated that supply chain education are not adequately preparing students for jobs in industry. Respondents were asked to indicate those areas of competencies where students are well-prepared. Generally speaking the respondents indicated that candidates do not have sufficient levels of preparation in most of the "hard" and "soft" skill areas, clearly indicating a failure of current supply chain education offerings to meet the requirements for changing technical skills as well as the well-documented "soft" skills. The results are indicated in Figure 4.

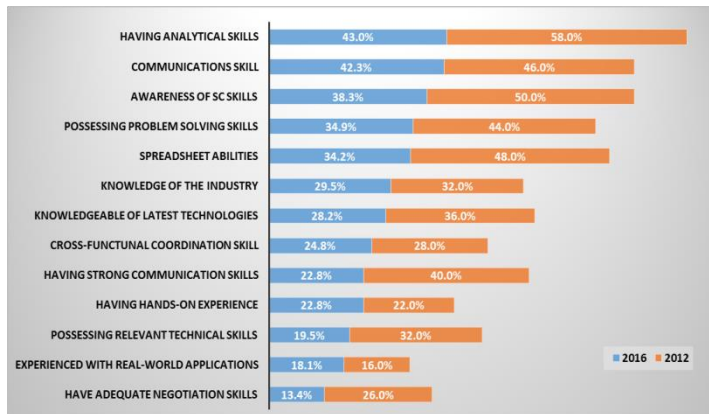


Figure 4: Competency of students

In 2016 respondents were asked what universities could do to better prepare students for a career in the supply chain industry. Respondents indicated a strong

need for more practical application as is indicated by the three highest cited potential solutions, i.e. more hands-on experience, interaction with practitioners and industry thought leaders and exposure to real-world examples through case study teaching. This supports the findings on work experience (see Figure 1) where industry indicated a much higher need for work place experience. The need to develop “soft” skills was also noticeably highlighted and supports the previous finding that the “soft” skills are those most sought after in South African supply chains today (see Table 1). This is illustrated in Figure 5.

CONCLUSION

The purpose of this paper was to assess whether or not there are significant changes between practitioners’ perceptions of workplace requirements and whether educational programmes are meeting industry requirements. Despite the indication that filling positions may not be as problematic as it has been in the past, it is still extremely difficult to find the caliber of candidate to fulfil leadership roles in supply chain organisations.

Fig 5: Skills requiring better preparation



This is further evidenced by the indication that organisations are increasingly seeking better qualified

and more experienced resources to fill managerial posts. The implication is that incumbents are underequipped to perform at an appropriate level in their current positions. This suggests that existing supply chain education programmes are not providing candidates with the required technical and “soft” skills as well as practical experience demanded from modern supply chains. This is supported by the industry indication that candidates need to be better prepared in almost all disciplines required for effective supply chain practitioners. This research thus suggests that, if supply chains are to be created that can enhance global competitiveness and sustainability, supply chain education must be relevant. This implies a review of existing service offerings and consideration of the inclusion of “soft” skill teaching and practical work experience. Further research should therefore be focused on methods to incorporate these aspects into university and other trainings institutions’ curriculums. It is suggested that failure to adapt education to modern supply chain requirements will restrict South African supply chains to being less than competitive in a globalised economy.

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Public Enterprise Reforms: Successful Reform at the Fiji Ports Corporation Limited

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ABSTRACT

Public Enterprises all over the world are facing challenges and going through the reform process. Fiji is no different and has also implemented public sector reforms. This article, in particular examines the challenges, impact and the current changes of a public enterprise in Fiji under the reform process. This paper reveals the impact and changes of reforms. The empirical study was undertaken on Fiji Ports Corporation Limited (FPCL). This research paper revealed that the reform process has brought about much changes, improving the efficiency and effectiveness of the port sector. It has showed continued revenue and profit growth with dividends payment to the government. FPCL has been up skilling staff through training and development. Also, strategic plans are in place to improve the information technology and projects are taken up to make the ports of Fiji to international standard. The paper suggests that Fiji needs to consider the impact of reforms during implementation and the successful changes in other public enterprises.

Introduction¹

Public Enterprises all over the world are facing challenges and Fiji is no different thus, going through the reform process. Public Sector Reforms are necessary to turnaround the organisation in terms of revenue generation, profitability and removing bureaucracy. The old practices of high government interference, reliance on government funding, inefficient workforce, high costs and minimum developments no longer work which resulted in many countries working on reforms. These reforms have been driven by various factors. This article examines the reform process at the Ports Authority of Fiji, reasons behind the reforms, the changes, and the impact of these reforms on the staff and outcome of the restructure. Based on the data obtained through various documents available, the paper explores the reform process and the outcome in one of the successful Government Commercial Company (GCC) in Fiji. This is an empirical study based on Fiji Ports Corporation Limited. The justification for selecting this public enterprise is that it has gone through the reform process and successful outcomes. This study is relevant to cover the gaps from the previous research and to enhance the knowledge of the reform process for other public enterprises. The

study shows that FPCL has been corporatised and operating on Public-Private Partnership. It is

operating with a commercial perspective, earning positive returns on investments and assisting Fijian Government in reducing debts. It has been one of the best performing government commercial companies paying regular dividends to the government. Some areas still require improvements to manage and operate efficiently for future sustainability.

Fiji Ports Corporation Limited

Fiji Ports Corporation Limited (FPCL) initially started as Ports Authority of Fiji (PAF) in 1975 and undergone dual reforms. The Private Public Partnership (PPP) was established between FPCL and Sri Lankan based company, Aitken Spence PLC (ASPLC) on 31 July 2013. The two companies' combined their services in Ports Terminal Limited (PTL) to provide the international level best facilities. FPCL sold fifty-one percent of shares in Ports Terminal Limited to Aitken Spence PLC for FJ\$10.35 million. ASPLC acquired the management rights of Suva and Lautoka Ports via PTL, it has bought the shore cranes and only the management rights but not the assets. FPCL and ASPLC have entered into a Shareholders Agreement to govern the finance, administration and performance of PTL in Suva and Lautoka. It allows FPCL to retain control of PTL. Port management is governed by performance based Concession Agreement.

Aitken Spence is one of the largest maritime logistics company in Sri Lanka and has agreed to provide its expertise to make the Suva and Lautoka Ports to world class standard, by permeating better efficiency, productivity and applying best practices to make them the leading ports and maritime logistic centres in the Pacific (FPCL, Website). New equipment worth FJ\$4.7 million was bought to boost productivity and efficiency and the future prospects are that Suva and Lautoka Ports operations are expected to be fully automated (Valemai, 2015). There has been a substantial increase in revenue and profitability with lower overhead costs, better ship turnaround times, higher volumes which resulted in dividend payouts to government, employee bonuses and pay rise. PTL was rebranded to Fiji Ports Terminal Limited (FPTL) in February 2015.

FPCL underwent a partial-privatisation initiated by the government in November 2015. Government

¹ This research paper is a continuation of our previous paper at the XXV11 Pan Pacific Conference in Bali, Indonesia, in 2010.

divested fifty-nine percent of its shares in FPCL at more than FJ\$100 million. Two key agreements were signed – Share Sale & Purchase Agreement and Shareholders Agreement. Under this agreement, Government maintained forty-one percent of the shares in FPCL, Fiji National Provident Fund (FNPF) owns thirty-nine percent and Aitken Spence PLC owns twenty percent. This means eighty percent of the shares in FPCL remains Fijian owned. FPCL transferred all real estate to a government holding company Asset Fiji Limited who leased the assets for ports operations to FPCL. Government owns all the land interest. Under the shareholders agreement, Government can appoint four directors, FNPF can appoint three directors and ASPLC can appoint two directors to the FPCL board.

Problems and Challenges of Reforms

Board of Directors and Management

FPCL and its subsidiaries are controlled by a board of directors who are responsible to oversee company performance, implement correct and good governance policies, achieve corporate targets and work within budget. The board was accountable and needed to provide regular financial reports and update on business performance. There were issues with the board members and management in terms of qualification and proven track record in the port industry. CEO abused office and practiced mismanagement. There were myriad of changes to the appointment of board members. It was claimed that social obligations were political, board members lacked qualification and experience and politically appointed board did not help in meeting its commercial objectives. Qualified and experienced people refused to be part of the board due to travel bans imposed by international countries driven by military-led government. All decisions had to go through the government, new strategies and plans were declined by the government. A number of political decisions were made which duplicated the functions of Maritime and Ports Authority of Fiji (MPAF) and PTL resulting in customer confusion and dissatisfaction in dealing with the two entities.

Employees

Reorganisation led to downsizing the workforce due to port restructure. PAF had implemented Voluntary Severance of Employment (VSE) package to release staff to establish MPAF. There was high redundancy payouts. PAF failed to prepare employment and industrial plan under PE Act (1996) and denied consultation requests from Fiji Public Service Association (FPSA) which led to legal actions filed against PAF and government but these actions were dismissed by the court. This delayed the establishment and operation of MPAF and PTL. All employees reapplied for their positions and MPAF took over the employee legal claims from PAF.

Individual three-year employment contracts, redesign of work pattern to avoid overtime and penalty rates, more flexible days and working hours, staff rewards and performance reviews were implemented. (Narayan, 2013). PTL changeover of civil service permanent contract to individual contracts led to labour actions and were resolved in court (ADB, 2002). Despite PTL educating the workers about the betterment of changes through better working conditions, led to the resistance to change due to union influence. PTL faced court proceedings in this matter. MPAF hired professionals to handle legal matters in-house and many staff became FPSA members. MPAF had to accept the compulsory recognition of union and there was negative and ineffective union and management relationship. MPAF did not allow union fees to be deducted from pay which resulted in the collapse of union. MPAF and PTL used traditional Fijian ceremonies and protocols to get the ethnic Fijian support towards reforms and left union aside (Narayan, 2013). Workers of both entities have formed Longshoreman's Union who have regular meetings and consultations.

Skills Development and Corporate Culture

Staff were continuously trained to keep up with technological advancement after the reforms (FPCL, Website). All staff were trained on effective usage of computers and sent for training at respective institutions. FPCL conducted seminars for management and engineer's from regional ports to promote co-operation. FPCL has implemented Performance Management System (PMS) to promote change to a performance based culture through leadership. Staff did not accept this change as they saw it as monetary-oriented and favored to those who were on higher positions. An awareness programme was organised to educate employees and clear the misunderstandings.

FPCL and PTL faced huge challenge of culture change. There was high absenteeism with previous civil service work culture (Narayan, 2013). FPCL organises Sports Day for the staff, management and their families to promote harmony. Board and management staff discuss reviews, corporate plans, statement of corporate intent and budget in consultation. FPCL continuously holds meetings with customers to take their feedback and resolve any issues.

Organisational Structure

FPCL realigned its organisational structure in October 2008 to improve operational efficiency and financial returns. Cost reduction and processes were streamlined to remove duplicate functions and mainly to improve management responsibility, accountability and transparency. Change realigned the marine and stevedoring in single Ports Operations Division. FPCL manages and controls all the commercial marine operations of the ports

which was previously done by FIMSA officers. This process ensured that there are no employee losses after a long consultation with stakeholders. FPCL head office was moved to Suva Port to have more visibility on port operations and work as a team (FPCL, 2008).

Projects and Other Changes

Fiji Ports Development Project funded by a loan from ADB for special engineering with climate-adaptation facilities completed in 2006. Suva Port was upgraded with seismic protection against earthquakes. The extension project of Suva and Lautoka Port has increased productivity and capacity with faster turnaround times. Investment of FJ\$20 million in mobile harbour cranes facilitated mechanised stevedoring, reduced waiting periods, low operational costs and reduced ship lay-up times.

Surveillance cameras were installed at Suva and Lautoka Ports in October 2006 to strengthen security with twenty-four hours monitoring. Suva Port also operates a power generator. Port operations software was upgraded in March 2007. This improved the control of container layout electronically, direct traffic, dock workers and operators into organised logistical operation. Twenty-eight acre land was reclaimed near Lautoka Port worth FJ\$9.0 million for future development which FPCL now plans to subdivide into lots and sell with seventy-five year lease (Narayan, 2013). Radio Data Telegraphic (RDT) system was installed. More marketing awareness was done, trademark name changed, specialised advertising and upgrade on FPCL website.

Financial Performance and Changes

FPCL is one of better performing public sector enterprises, financially independent, continuously making profits and paying dividends to the government. FPCL recorded increase in import/exports, vessel numbers, vessel tonnage, and cargo carrying vessels, foreign vessel calls including increased expenditure and exchange losses in 2008. FPCL and PTL's performance was also affected by fluctuating exchange rate, devaluation and global economic crisis. The tariff increase resulted in increase in revenue and profits in years 2009-2014. It achieved highest revenue in 2013 with highest dividend payout in 2014. Financial ratios have improved. Continuous profits and dividend payouts from 2006 till 2016. These positive financial results have enabled FPCL to undertake further long-term projects.

Impacts of Reforms

Reforms have improved the performance of FPCL. It has set criteria in appointing board members and management staff, thus, well qualified and experienced people were recruited in the board and management to lead the business. FPCL has been continuously upgrading and renovating the

respective ports to cater for more demand. Also new equipment and machinery has been purchased to improve efficiency. Through the loans from ADB (Asian Development Bank), a number of projects were undertaken to develop the ports, improve efficiency and faster the operations. More emphasis has been put on workforce by organising company social functions to improve worker and management relationship. Redundancy programs are in place to maintain the sizable workforce which avoids legal issues. Staff are continuously trained to upskill with new practices and technology. FPCL is a member of many international port affiliated bodies like Pacific Countries Ports Association, International Association of Ports and Harbours, International Cargo Handling Co-ordination Association, Association of Australian Ports and Marine Authorities, Fiji Business Councils, Fiji Employers Federation and the Cruise Liner Task Force and sends its staff to attend meeting and conferences. The realignment of its organisational structure in October 2008 improved operational efficiency and financial returns. Work processes were streamlined to remove duplicate functions and this improved management responsibility, accountability and transparency. Change realigned the marine and stevedoring in single Ports Operations Division. FPCL manages and controls all the commercial marine operations of the ports in Fiji.

Conclusion

This research study has examined the reform process of the port sector in Fiji. FPCL has gone through major restructuring program to iron out the inefficiencies in its operations. There have been major changes to the organisational structure, working style, human resources, corporate culture, and board of directors, infrastructure development and company ownership to bring the business in a position for future sustainability with international standards. FPCL has been performing well except for some financial struggle which triggered the reform process. It has been financially independent when PAF was formed. Ports and equipment has been continuously upgraded, staff training and development has been a major focus of FPCL. The board members and management have been recruited with qualification, experience and with proven track record in the port industry.

(References will be supplied upon request.).

Information Technology Project Failure at a South African State Owned Enterprise

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ABSTRACT

South African state-owned enterprises are experiencing difficulty in delivering information technology projects successfully. A research study in the qualitative paradigm is conducted where interviews were held with project and program managers at a specific state owned enterprise. The problems stem from fluid requirements as well as ambiguity regarding what project failure entails. With mostly their mid-level experience to draw on, project managers at these organisations find it difficult to perform their duties when resources are not fully committed to the project. Actionable recommendations are made that relates to the establishment of effective communication procedures and requirements management, among others.

INTRODUCTION

South Africa's public sector services the needs of a population of more than 50 million residents (Anon, 2016). Nine provinces are federally organised to provide essential social and basic services using legacy infrastructure. A great drive is implemented in these department to modernise its service delivery through the use of information technology (IT) (Businesstech, 2015). However, more than ZAR700 billion investment has been wasted since 1995 due to corruption, irregular expenditure and failed projects.

IT projects have the potential to provide benefits to an organisation in support of achieving strategic objectives (Erasmus & Marnewick, 2012). Therefore, IT project management has the ability to directly contribute to the wellbeing and upliftment of millions of citizens.

Project management has become an area of great significance in organisations in the achievement of strategic initiatives (Marnewick, 2012). These initiatives take the form a unique endeavour, undertaken by an organization to create value for the organization and its stakeholders (Schwalbe, 2013).

Projects are intended to be short-term activities and support the organization to realize and innovate their strategy, within their respective industries.

In theory, this should be simple enough to implement, yet, in reality, projects are infamous for failing (Erasmus, Marnewick, & Joseph, 2014; Johnson, 2014).

Purpose of this research

The main purpose of the study is to find more insight into why IT projects fail in the context of

South Africa's public sector. The following research questions are identified:

- (i) What is IT project failure in the context of South African SOE's?
- (ii) What factors contribute to IT project failure at South African SOE's?

LITERATURE REVIEW

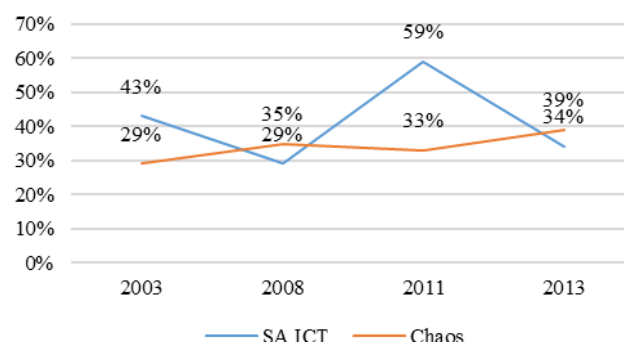
Project outcomes

According to the Standish group, projects outcomes are either successful, challenged or failed (Johnson, 2014). A successful project means that the project is completed with customer receiving a viable product as well it is delivered on time and budget. This would seem to include traditional project success as measured by project constraints, as well as project product success where projects success is dependent on a functional product being delivered (Bannerman, 2008; Clements & Gido, 2012; Marnewick, Erasmus, & Joseph, 2016).

Thus, when a project is challenged, it means, it may have been completed, though, the project may have been over budget, or had insufficient functionality and poor quality or took more time than planned (Bierwolf, 2016; Boehm, 2000). Furthermore, when a project failed, it entails that it is terminated before completion. IT may also entail that a project has exceeded its agreed time and cost constraints and does not bring customer satisfaction through excluded features.

Most IT project are not delivered successfully (Johnson, 2014). The same is true for South African IT projects (Marnewick, 2013):

FIGURE 1: IT project failure rates



Evidently, IT projects yield extremely low success given the amount of investment. More than 30% of Software Development IT projects are cancelled before completion (Imamoglu & Gozlu, 2008).

Another concerning fact is that IT projects cost exceeded 189% their initial cost estimate.

Further studies indicate that more complex projects present an even higher risk of failure (Joseph, 2014). Factors such as the number of stakeholders involved the size of the project and number of deliverables increases the complexity of a project. This brings forth a need for the effective management of projects, which means managing all risk.

Another perspective that is emerging is the concept on focusing on the value or benefits derived from a project, regardless of the manner in which it was completed (Bierwolf, 2016). This would entail that even if a project does not deliver the desired outcome in a timely, cost-efficient or complete manner, it can still be considered a success should the customer derive the intended benefit from a viable deliverable (Marnewick & Labuschagne, 2011).

Possible contributing factors to IT project failure

Research regarding IT projects has focused mainly on the major factors and influences of IT project success. This research has been translated in various guides and standards. Yet exceedingly high level of project failure remain the reality. Just as sources of project success exist, so do sources of failure. Nawi et al. (2011) proposes six sources of failure as risks to be mitigated:

FIGURE 2: Sources of project failure

Project management factors	<ul style="list-style-type: none"> • Lack of user involvement • Unclear scope and objectives
Top management factors	<ul style="list-style-type: none"> • Lack of champion • Lack of commitment
Technology factors	<ul style="list-style-type: none"> • Lack of development expertise • Lack of commitment
Organisational factors	<ul style="list-style-type: none"> • Culture • Conflicting interests
Complexity and size factors	<ul style="list-style-type: none"> • Large, multifaceted project • Many deliverables
Process factors	<ul style="list-style-type: none"> • No formally stated methodology • Conflicting interests • Unsuitable methodology

These sources are internal and external to the project. The project manager relies on the formally adopted methodologies, culture and management factors to be in place prior to any project being initiated. However, the project itself may be complex in nature and risk of failure may be exacerbated by poor project management practices itself.

DATA GATHERING AND RESULTS INTERPRETATION

Research design

The research is performed from a qualitative paradigm. Interviews were conducted with project managers and other project workers in a specific South African SOE. The data was collected by way of transcripts and analysed with the aid of software.

The context of failed projects

In order to determine an explanatory context for the data to follow, the interviewees were requested to divulge their experience levels. The responses varied from 18 months to 20 years working in project management.

The largest group of project and program managers have more than ten years' experience and cannot be classed as junior project practitioners anymore. There is however a slight majority of project and program managers who have less than ten years' experience. Therefore, the results and discussion to follow should be seen in the context of project practitioners who have intermediate levels of experience.

The projects undertaken were mostly IT infrastructure and software development projects. Some of the interviewees indicate that they have not experienced a failed project yet where as one individual had as many as ten failed projects.

Defining the failed project

All the interviewees were unanimous in declaring that a failed project does not meet the triple constraint or delivers benefits as states in the business case. Clearly, the individuals in this organisation are acutely aware of the fact that their performance on projects are measured in technical success criteria. This is the area where project managers have direct control and responsibility to achieve.

According to the interviewees, they cannot be held accountable for delivering a project that does not provide the benefits as envisaged if all technical requirements are met. A failure in this instance would lie with customers, program managers or higher levels of management for selecting the incorrect product or solution to be implemented. A network view in ATLAS.ti yields characteristics of failed projects and can be divided into technical project success and product failure:

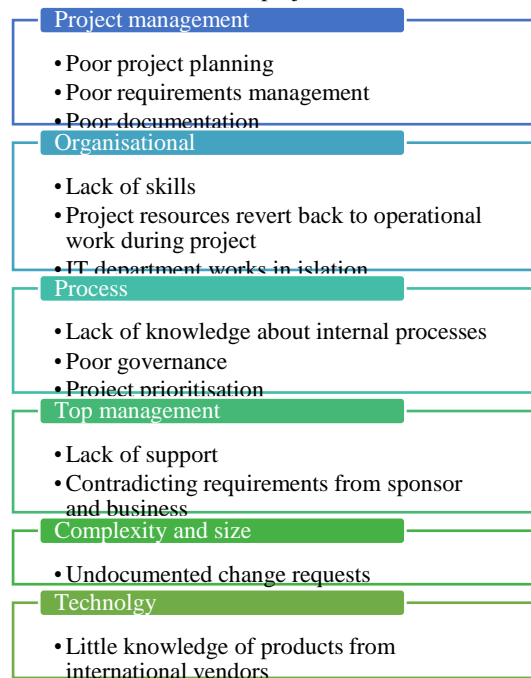
- i) Technical project failure
 - a. Does not meet customer requirement
 - b. Project not completed in time, scope and budget (Triple constraint)
 - c. Project does not meet quality
- ii) Product failure:
 - a. Fluid requirements
 - b. Does not meet functional requirements
 - c. Project does not realize benefits.

The implication is clear that in this case, project management success is dependent on both technical and product success of the project.

Factors of IT project failure

One of the study's main research questions is to gain insight into the factors for IT project failure at a South African SOE. The responses were quite diverse and related to the five of the six sources of project failure as in figure 2. The figure below summarises the key responses and how they relate to these sources of IT project failure:

FIGURE 3: Factors of IT project failure



All the interviewees lamented the fact that poor requirements management is a central aspect. However, some of the interviewees stated that project managers were not involved in any meaningful way during the planning process. In some cases, project managers were assigned to projects that already well underway. This is extremely disconcerting.

The second greatest source of failure is organisational factors. The interviewees were mostly concerned about human resource considerations. There was a concern about the lack of skilled resources and how they were allocated to the project. What the interviewees found most egregious was the fact that committed resources readily reverted to their own operational duties while the project is still in execution. It would appear that these resources are not dedicated to the project by their respective management teams.

A peculiar issue surrounding organisational culture and communication also emerged. Defects and project issues are not escalated timeously. There is a sense of fear of escalating tasks to avoid bad relationships within the environment.

Thirdly, process considerations seems to be great source of IT project failure as well. There seems to be great lack of knowledge on the part of project practitioners around internal processes. This may stem from the fact that these IT departments operate in isolation from the rest of the organisation. The lack of governance in many cases is also a concern.

The organizations policies and processes define how work is done as well as how projects are conducted.

CONCLUSION

All agreed that a successful project should have a technical as well as product component. A project could conceivably be successful in terms of schedule, cost and quality constraints and yet fail in the eyes of the customer if that deliverable does not meet their needs. The opposite can be true as well. The greatest risk of failure for SOE's in this context lies in project management, organisational and process factors. The greatest concerns lies around the commitment of resources, poor requirements management and communication.

The following recommendations are presented to project practitioners and managers who are accountable for successful project delivery:

- (i) The organization must clearly communicate their expectation to project managers in terms of what is considered a successful project: technical vs. product success.
- (ii) The formal adoption of project management guides or standards are strongly advised.
- (iii) A communication plan that facilitates open an honest communication should be implemented.
- (iv) Stability in fully discovered requirements are essential in ensuring that projects do not become victims to undocumented or continuous change management procedures.
- (v) The practice of redeploying project managers mid-project and replacing him or her with another project manager must halt and only be considered if absolutely necessary.
- (vi) Project managers who understand the technology and have the technical skills to manage a project are far more likely to successfully deliver a project. These project managers need to identify their skill gaps and approach a management team who is willing to upskill the individuals who are responsible for delivering projects.

Areas for further research include:

- (i) The role of governance in the successful delivery of IT projects in the public sector;
- (ii) A framework for the governance of portfolios, programs and projects for public enterprises, and;
- (iii) A comparison of practices in public and private organisations in the delivery of IT projects.

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A Study on the Co-Occurrences Structure Map for Civil Petitions Corpus in Busan

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ABSTRACT

The aim of this study is to summarize the civil petitions data objectively and efficiently, and visualize the civil petitions map to grasp the characteristics of civil petitions contents. For the purpose, this study attempts to create a Co-Occurrences Structure Map by applying the corpus analysis methodology, which can be used to manage systematic and efficient complaint data by statistical techniques. It will contribute to develop a comprehensive civil information system by integrating data related to civil affairs, and to ensure accountability and transparency of civil administration. In details, this study analyzes the key understanding interest, cognitive system, and perception change on keywords by performing keyword extraction, visualization of network structure of co-occurrences, and time series analysis. By summarizing the co-occurrences mappings by time-series analysis, it is possible to analyze pattern characteristics according to the subject of civil petitions. Through this analysis, this study can contribute to provide practical supports such as creating manuals for corresponding to characteristics of civil petitions, forecasting the demand for civil petitions, and disclosing information about civil petitions handling.

Key words: Regional Innovation, Corpus Analysis, Public Concern, Co-creation

1. Introduction

Recently, electronic civil petitions system has introduced, and civil petitions on public service are quickly gathered, as well as, the basis of regional innovation through citizen participation is laid. However, it is astronomical time and expense to read massive civil petitions and to gather the actual public concerns of citizens, and it is practically impossible to realize it.

As a part of big data science for problem search and decision making, the aim of this study is to develop a public concern assessment methodology by applying corpus linguistic based content analysis.

For the purpose, this study proposes two methodologies, i) the keywords analysis of civil petitions applying the TFIDF (Term Frequency Inverse Document Frequency), ii) the visualization of the co-occurrences network structure, that support to understand common perceptions or dissimilarity of major petitions.

2. Civil petitions analysis

Administrations are required to ensure public confidence by thoroughly taking accountability and legitimacy of their decisions in the management of public services using public resources entrusted by citizens.

Public service affects many stakeholders directly or indirectly. Stakeholders have different perceptions about these public service decisions, and they stand in their respective positions to discuss requirements. However, it is practically impossible to implement public services that satisfy all stakeholders. Here, the problem of legitimacy of "what kind of positions and opinions are to be used as appropriate" arises (Hatori et al. 2013).

On legitimacy, Jeong (2008) argued that "in the process of public service decision-making, legitimacy is established when there is democratically full approval that any opinion or requirement is appropriate and desirable for the social system, or approved opinion or requirements presuppose rationality and impartiality."

Recent electronic civil petitions system is different from the existing administration that is based on the self-evaluation of the public service planning. It can be characterized as an emphasis on "communicative planning process" that a wide range evaluation through social communication and a cooperative mutual adjustment are performed in the decision-making process,

In order to promote the new administrative services, "opinion formation by dialogue" and "accurate information sharing" are important for accountability and legitimacy

3. Tfidf and co-occurrences structure map

TFIDF methodology is applied to extract keywords which can represent major perception of each media. TFIDF scheme proposed by Salton et al., and is based on the term frequency of word appearance and is used to decide the significance of a term w in a document a , comparing other documents (Jeong et al., 2008). The TFIDF is given below (1):

$$TFIDF_{w,a} = TF_{w,a} * IDF_w \quad (1)$$

$$IDF_w = \log(N/DF_w) + 1$$

$TF_{w,a}$ = Number of occurrences of term w in document a

DF_w = Number of documents containing term w

N = Total number of documents

$TFIDF_{w,a}$ refers to the total amount of the importance of term W in document a , and named TFIDF score. The TFIDF score can be derived by multiply “the number of occurrences of term W in document a , $TF_{w,a}$ ” and “the number of inverse documents containing term w , IDF_w ”. If a term W appear frequently in a document a , the term has a high score of $TF_{w,a}$, but it is not necessarily important. The significant of the term W can be judged by a comparison with other documents. That is, the number of inverse documents containing term w , IDF_w is an important matter. IDF_w is defined as the log of total number of documents with documents containing term w , DF_w . It indicates a document frequency containing a term W . For example, if a term W_1 appears in a few documents and appears frequently in the analysis target document a , both score of IDF_{w1} and $TFIDF_{w1,a}$ are high. On the contrary to this, if a term W_2 appears in many documents and appears few in the analysis target document a , both score of IDF_{w1} and $TFIDF_{w1,a}$ are low. That is, the term with a high TFIDF w , a score implies a significant term W in document a . The terms that appear frequently in a document comparing other documents characterize the document. For the details, see a previous paper written by Jeong et al (2008). In this study, DF_w is calculated with 620 articles of Hankyoreh newspapers which provided by the KAIST Semantic Web Research Center (SWRC).

4. Case study: busan civil petitions

4.1 Major Civil Petitions

This study analyzed corpus data of civil petitions that open in the electronic application window of "Wish to Busan City (Busan-si-e-ba-ran-da)" from Jan. 1, 2015 to Dec. 31, 2015.

Table 1. Monthly TFIDF analysis

	Jan.		Feb.		Mar.		Apr.	
1	bus	973	bus	404	bus	448	bus	545
2	route	492	food	290	route	392	pixel	304
3	vehicle	377	apartment	269	construct	279	route	288
4	stop	275	answer	242	Jeonggw an	201	Jeonggw an	267
5	apartment	262	resident	208	apartment	193	construct	213
6	turn	260	sell	194	construct or	193	constructi on	200
7	crackd own	257	petitio ns	192	move in	186	Hogi	196

8	signal	252	Librar y	190	parking	186	Public transport ation	186
9	time	235	Vehicl e	186	parking	169	resident	185
10	road	225	Child	182	vehicle	160	Kori	181
	May		Jun.		Jul.		Aug.	
1	food	2073	hospit al	880	bus	681	bus	1168
2	pensio n	1438	bus	769	apartmen t	341	vehicle	461
3	servan t	1114	patient	745	citizen	325	route	429
4	safety	981	route	675	construct ion	280	citizen	420
5	propos er	847	Circul ation	587	parking	262	parking	407
6	free	774	constr uct	523	route	241	heaven	364
7	bus	759	Open	519	vehicle	239	thning	403
8	childc are	706	Pixel	456	people	234	Use	342
9	meal	565	Isolate	431	stop	230	people	319
10	basic	524	Definit e	401	use	229	resident	307
	Sep.		Oct.		Nov.		Dec.	
1	bus	832	Route	2140	bus	2977	Bus	1951
2	vehicl e	532	Bus	1965	route	2035	seawater	1308
3	route	429	Jeonggw an	810	Jeonggw an	1716	Route	1240
4	renew al	361	runnin g	476	running	963	Water	886
5	parkin g	361	Disco mport	466	resident	712	Kyongdo ng	728
6	answe r	340	use	455	time	653	resident	657
7	time	315	comm ute	397	Seat	646	move in	631
8	petitio ns	310	citizen	379	Change	562	Door	589
9	via	290	reside nt	354	discomp ort	522	citizen	572
10	bridge	284	time	351	citizen	501	running	519

First, TFIDF analysis was conducted to identify major petitions. Monthly TFIDF analysis was conducted to examine trends in major civil petitions for one year. Table 1 summarizes the results. In January, stops, revolutions, enforcement, signals, time, and roads are featured. Petitions about bus stops and roads are the main issues. In February, respondents, residents, prefectures, petitions, libraries, and children were featured in comparison with other months. It can be seen that there is a question arising about the answer to the complaint. In March, construction contractors, residents, parking lots, and parking facilities were mentioned as characteristic features. In April, pixels, construction, expiration, public transportation, and “Kori” are characteristic. “Kori” and “Hogi” are civil petitions about the Kori Nuclear Power Plant, and pixels are petitions about the installation of high-definition CCTV.

In May, civil servants are cited in reference to public servants' pensions and basic pensions, as well as petitions about free meals. In June, the words related to the Mert disease were mainly mentioned. Hospitals, patients, circulation, public, quarantine, confirmation are the words related to this, which is the main topic. In addition, specific names include “Jeonggw an” and “Kori”. From the top 10 topics, concrete problems mainly appearing in citizens' petitions include the lack of infrastructure of bus

lines, new towns and cities, high-definition CCTV installation, public pension fund basic pension, free meal service, and anxiety about food safety. It can be seen that it is possible to clarify the change of the monthly topic by comparing with the total petitions, and it is possible to grasp intuitively from the context.

4.2 Co-Occurrences Structure Map of Major Petitions

A co-occurrences structure map was conducted for easy visualization of what contents were specifically mentioned about the main complaint keyword (Motomu et al., 2006). In this paper, the main keyword "bus route" with the highest TFIDF value for civil petitions in January 2015 is extracted as the major petitions keyword. When the number of petitions simultaneously containing a certain word B appearing together with the keyword A ("bus route") is counted, and B is defined as the main co-occurrence of A when it exceeds 30 times. In this case, to simplify the visualization, the length of the network is not weighted according to the proportion of the frequency of co-occurrence. The Graphviz program was used to construct the co-occurrences structure map.

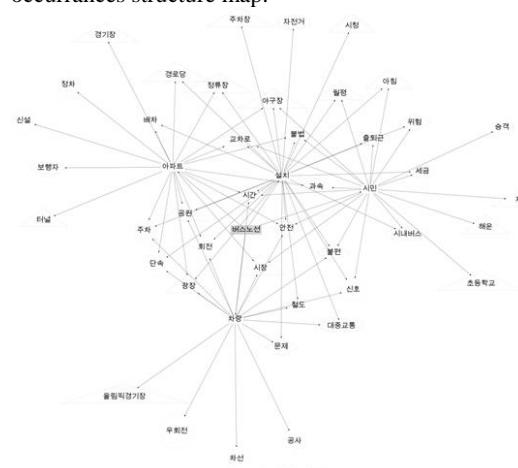


Figure 1. Co-occurrences Structure Map of "Bus Route"

As shown in Figure 1, the words "vehicle", "citizen", "apartment", and "construct" were extracted as direct co-occurrences of "bus route" that are the first co-occurrences. And "speeding", "time", "safety", and "discomfort" "time", and "speed" were assigned to the in-direct co-occurrences of "bus route" that are the second co-occurrences. These three words can be interpreted as a major concern on the bus routes.

It helps to understand the interest structure of each sub-theme through the words connected with "vehicle", "citizen", "apartment", "installation" For example, it can be seen that attention is focused on specific areas and specific infrastructures such as "Olympic stadium", "right turn", "lane", "construction" for "vehicle". In other words, contents of civil petitions can be easily summarized and their characteristics can be summarized.

5. Conclusion

This paper proposed a methodology of Co-Occurrences Structure Map by applying corpus analysis method to summarize contents of vast civil petitions objectively and easily. By applying these statistical techniques, systematic and efficient civil data management can be implemented. By integrating civil service related data through civil service response evaluation and information disclosure system, a comprehensive civil information system can be developed, It is expected to contribute to securing responsibility and legitimacy. In particular, the time series analysis of the main civil petitions with TFIDF and co-occurrences structure map support to clarify the public interest, public awareness, and perception change. The analysis methodology provides practical supports such as creating manuals for responding to petitions (single / persistent, specific group / comprehensive group, etc.), forecasting civil demand, and disclosing information on complaint handling.

ACKNOWLEDGMENTS: This work was supported by the Ministry of Education of the Republic of Korea and the National Research Foundation of Korea (NRF-2015S1A3A2046781)

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A Big Data Processing of Anxiety and Management of Crisis Communication

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ABSTRACT

The aim of this study is to develop a big data processing tool of measuring anxiety and to propose a proper management policy of crisis communication. Twitter is a real time communication tool involving a large number of users. In the 311 Great East Japan Earthquake, Twitter was played an important role in sharing disaster information very rapidly. This paper reviews on the previous anxiety measurement approaches and proposes a corpus-based approach. Natural language processing and text mining techniques are applied to analyze the Twitter corpus on the 311 Great East Japan Earthquake and a crisis communication management policy is proposed considered with the analysis results.

Key words: Twitter, Crisis Communication Management Policy, Big Data Processing

1. Introduction

The aim of this study is to clarify the relationship between the risk assessment in crisis communication at the time of disaster and the influence of anxiety, and to develop an anxiety quantification methodology applying corpus linguistics. Using the government announcement on the 311 Great East Japan Earthquake and the Twitter corpus, this study examines the difference in evaluation on risk "radiation" between the government and citizens. For the purpose, this study proposes an anxiety measure quantification indicator applying the polarity of the evaluation on risk, and analyze the time series fluctuation of the citizen's anxiety about radiation risk. The proposed anxiety measure quantification index is applied the negative degree polarity of the evaluation on risk, and can interpret the time series change of anxiety.

2. Basic idea

2.1 Anxiety

Anxiety refers to negative emotions that include concern, distress, worry, and uncertainty about the results of an event or a situation. Beck and Clark [1] pointed out that anxiety appears in a three-stage schema-based information processing model, which consists of initial registration, immediate preparation, and secondary elaboration. In a secondary elaboration process, anxious individuals evaluate the availability and effectiveness of their coping resources to deal with a perceived threat. Secondary elaboration has two aspects, worry and safety signal. Anxiety is one consequence of

secondary elaboration on information perceived as dangerous, resulting in an expansion of anxiety. Secondary elaboration, on the other hand, also involves interactions between avoidance of danger and safety signals. This idea is based on the hypothesis that the amount of risk is relieved by cognitive functions on speed and possibility of returning to a safe state. Therefore, it is important to understand complicated behavioral patterns such as high order general elaboration of people when designing signals on safety state to effectively reduce anxiety. Based on the previous studies, anxiety can be evaluated on the characteristics of the situation such as whether the expected situation is threatening or highly related to himself, and in the process of evaluating whether the situation can be controlled. However, this state does not end with only one evaluation of the situation, but at some point it takes a state of worry, or takes a safe state, and it gets updated while acquiring information on repeated fields. As a result, he was worried at first that he could go back to a safe state after a long time, the switching of psychology is always done, although he not feel uneasy at first, but fall into anxiety. In the event of a disaster various communication is done to the danger, and many of them can be thought of as the language produced based on this psychological state.

Crisis Communications Corpus

Crisis communication corpus has various things such as "mass media information via newspaper or television", "information released by the government" created by experts, mails and mobile phones exchanged by the general public. In the event of the 311 Great East Japan Earthquake, crisis communication carried out by using social networking service (SNS) by e-mail or cellular phone. Especially, there were many information exchanges between individuals or government agencies and victims and non-victims through Twitter. As these pieces of information clearly show places and time, it became valuable information to grasp the situation of the affected site. It is possible to acquire individual-based disaster information that could not be read with disasters so far, or subjective information that originally meets the context of each user's disasters and vital disasters that only flows locally. In addition, Twitter was used as a means to promptly provide information to citizens as crisis communication at the point immediately after the disaster is implemented via Twitter. Twitter is a

social media with short sentences of up to 200 characters and anyone can freely write it comfortably. Furthermore, it is a new form of chat through computer and is a real-time platform that does not screen rigorous information based on the user's social relationships strict mechanism 13); In emergencies like disasters and various crisis situations, Twitter can be a source of information for users participating in communication to immediately judge the situations in which they are located 15);

3. Big data processing of anxiety

A corpus based discourse analysis [2][3] is conducted to evaluate anxiety on a disaster risk which addressed by the government agency announcement (Tokyo Electric Power) and Twitter[4]. In detail, i) annotation, ii) TFIDF analysis, iii) extraction of co-occurrences on topic "radiation", iv) evaluation of anxiety polarity, and v) definition of anxiety index, and vi) analysis of time series change of anxiety were conducted.

In this study, the word emotion polarity correspondence table developed by Takamura et al. [5] is used to determine the emotional polarity of the evaluation on a risk event "radiation" that is closely related to the nuclear power accident of the 311 Great East Japan Earthquake. For example, if assuming that "radiation" is a risk expression word for the sentence "I am afraid that radiation will come to the prefectural south", the co-occurrence of "afraid" which is a co-occurrence of "radiation" and calculate the degree of anxiety by multiplying the frequency by the emotional polarity 0.99799. As a result, it is possible to analyze differences in polarity judgment between disasters and normal times for the same risk event.

However, in Twitter communication, there are many expressions that are not structured as sentences, and there is a possibility that the word emotion polarity correspondence table cannot be simply applied. Therefore, instead of using the word emotion polarity correspondence table as it is, this study use it as a criterion for judging whether the evaluation word is negative or not. If it is possible to visualize that people's emotional polarity to risk events, that is, the negative degree of evaluation changes significantly in Twitter, it will be evaluated that the emotional polarities of people at disaster and normal times change. Therefore, it is possible to analyze the extent and timing of anxiety spread among people as the situation after the disaster develops.

4. Analysis results

Figure 1 shows the time series variation of total co-occurrence frequency with 'radiation' and only negative co-occurrence frequency in Twitter corpus. The co-occurrence frequency had been documented every three hours for an hour at a time. Just after the disaster, co-occurrence frequency increased abruptly until 9 p.m. and declined dramatically three hours later (midnight). The volume of risk assessment including 'radiation' changed Fig. 1. The Time Series Variation of Co-Occurrence Frequency with 'radiation' in Twitter according to

the occurrence of accidents. During the first half of the data collection period, the timing of the rapid increase in co-occurrence frequency was almost six hours after the nuclear accidents, while the frequency rose sharply three hours later during the latter half of the data collection period. As noted in above, people directed more of their attention to 'radiation' after the sequence of nuclear accidents on March 15. When assessing risks, people pay attention to risks sensitively and try to solve current problems with limited information obtained by the attention which is also scarce.

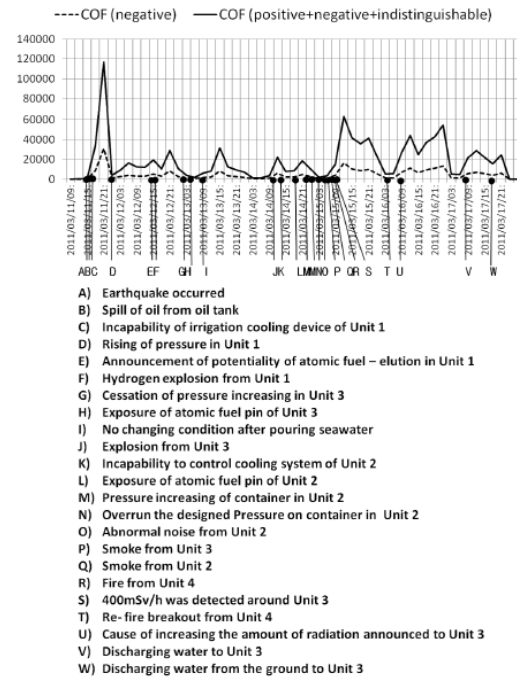


Figure 1. The Time Series Variation of Co-Occurrence Frequency with 'radiation' in Twitter

To measure the level of anxiety using the crisis communication corpus, an Anxiety Index has been proposed that refers to the degree to which a risk (e.g., earthquake, tsunami, or radiation) is perceived negatively. The proposed Anxiety Index is defined with Equation 1.

$$Anxiety = \frac{COF}{TF}^N \quad (1)$$

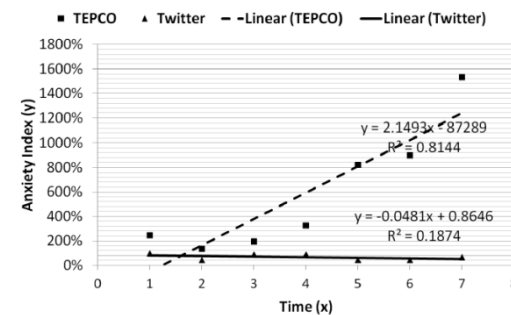


Fig. 2 The Time Series Variation of Anxiety

Anxiety Index is defined as the ratio of term frequency (TF) of a concerned risk to co-occurrence frequency of negative terms (COF^N). The negative terms are counted based on words and semantic orientations. This index considers the cognitive assessment of a concerned risk, such as 'radiation'. Even if the crisis communication corpus were to include numerous references to 'radiation' and negative assessment terms were not great, people's anxiety levels for 'radiation' would be interpreted as relatively low. On the other hand, even if the crisis communication corpus were to include only a few references to the term, an assessment with a greater amount of negative terms would indicate that anxiety levels about 'radiation' were relatively high. Figure 2 shows the co-relationship between anxiety and time. In this study, COFN with 'radiation' were counted for each seven days. To analyze the co-relationship between anxiety and time, we applied the Anxiety Index for anxiety variable y and set a time-series variable $x \in (1, \dots, 7)$ as a day. Thus, the co-relationship could be stated formally as a linear regression model. In the figure, the regression coefficient of government (TEPCO) is 2:1493; it is positive and its coefficient of determination (R²) is over 0.8. That means government (TEPCO) anxiety regarding 'radiation' increased as time passed. On the other hand, Twitter's regression coefficient was negative, but its R² was low. It means the co-relationship between anxiety levels of Twitter users and time was not significant.

5. Conclusion

This paper has proposed a methodology for measuring anxiety in a disaster, based on corpus linguistics and a combining of methods, including TFIDF and COF. In the Great East Japan Earthquake, Twitter played an important role in crisis communication between disaster areas and non-disaster areas in the early phase of the crisis. Measurement of anxiety related to the disaster was achieved by estimating the risk assessments of TEPCO and Twitter users by using the Anxiety Index, which was proposed in this paper as an indicator of negative risk perceptions of people regarding the Great East Japan Earthquake. Comparing TEPCO's announcements and the Twitter corpus, anxiety expressed by the government changed noticeably, while anxiety levels of citizens did not show clear fluctuations. This study can provide governmental agencies with guidelines for issuing clear information about disasters to reduce anxiety among the public. Methodology of this study could have been improved, however. First, the list of semantic orientations used for determining if words were negative or positive did not cover the whole word set, so certain words (e.g., coined words, clipped words, proper nouns, or dialects) that were used considerably in Twitter were not verified. Second, the proposed Anxiety Index considers only negative terms; it should be improved to consider other factors that influence anxiety and individual language use patterns associated with daily use and emergency use. Third, since the Twitter data includes contextual information (e.g., location, time,

and individual language use patterns) and user networks in retweets. It is necessary to broaden the investigations to use such data regarding anxiety.

ACKNOWLEDGMENTS: This work was supported by the Ministry of Education of the Republic of Korea and the National Research Foundation of Korea (NRF-2015S1A3A2046781)

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Sustainable Development and Palm Oil Production

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ABSTRACT

Demand for palm oil continues to increase from India, Europe, China and the United States. Uses for palm oil are quite broad especially as fillers in many food products. There do exist many obstacles to the sustainability of palm oil production especially if producers do not abide by the directives of the Roundtable on Sustainable Palm Oil (RSPO) certification, as one example. At present, only about 10% of palm oil producers are RSPO certified. As a result, rivers have become polluted and burned forest for palm oil production pollute the air with noxious particulates that result in environmental degradation and critically, premature deaths. However, sustainable solutions exist that can balance the demands of economic development and environmental sustainability

INTRODUCTION

In less than 100 years, palm oil has moved from being a relatively minor subsistence crop in West and Central Africa to one of the world's major agricultural commodities. While oil palm in Africa has been cultivated for centuries by deliberate plantings and selective clearing, it has recently expanded dramatically in Southeast Asia, and increasingly in Africa and Latin America (Sayer, et al. (2012: 114). Palm oil production in Indonesia and Malaysia represents 33 % of the world's total production (Muna, 2016). Demand for palm oil continues to increase from India, Europe, China and the United States. Uses for palm oil is quite broad especially as fillers in many food products. Palm oil and its derivatives are part of thousands of products across the globe today (see Figure #1). One can find it in biodiesel, soap, doughnuts as well as soap, to mention only a few. Since 1990, palm oil consumption has quintupled worldwide. The demand in Asia, where palm oil is used in cooking oil, accounts for a \$44 billion industry. Indonesia is the world's largest producer of palm oil, with a forecasted annual growth in production of 10%. Early 2013, exports from Indonesia hit a five-year high (UDP.org).

There do exist many obstacles to the sustainability of palm oil production especially if producers do not abide by the directives of the Roundtable on Sustainable Palm Oil (RSPO) certification. At present, only about 10% of palm oil producers are RSPO certified. As a result, rivers have become polluted and air carries noxious particulates that result in environmental degradation and premature deaths within those affected communities. For

example, smoke related deaths from burning resulted in 100,300 premature deaths in Southeast Asia from July through October 2015 (Schonhardt, 2016). Further, in the fall of 2015, Indonesia released more carbon per day than the entire European Union (Fountain, 2017).

FOREST PRESERVATION AND SOIL MANAGEMENT

All peatlands, where palm oil production thrives, consists of slowly decomposing vegetation in swamp forests, that has been accumulating for more than 10,000 years. Peat covers only about 3 percent of the Earth's land surface, but because it stores carbon over a long time, it contains as much carbon as all of the world's plants and trees, and almost as much as the atmosphere. Most peatlands are in northern regions, including Alaska, Canada and Russia. But tropical peatlands especially, are highly vulnerable to land-use changes and climate warming, both of which can lead to peat drying out and decomposing quickly, which would release the carbon back into the atmosphere. Recently, scientists have mapped what is the largest peatland in the tropics, an area larger than New York State in the Congo Basin in Central Africa (Fountain, 2017). If this land is not preserved, environmental damage may be daunting. According to Emma J. Stokes, who directs the Central Africa program for the Wildlife Conservation Society, said that protecting the peatlands was crucial, as the swamp forests are home to many animals, including some of the highest densities of lowland gorilla's anywhere (Fountain, 2017).

As suggested earlier, the lack of oversight has led to the clearing of forests across Southeast

Asia for oil palm production. However, recently in Sarawak, Malaysia on the island of Borneo, the government has succeeded in preserving 68% of the original forest according to Natural Resources and Environment Minister Wan Junaidi (Bahari, 2016).

According to Dr. Lulie Melling, the Director of the Tropical Peat Research Laboratory Unit (TPRL), "one of the most appropriate methods to resolve the problem of peat fires is by compacting the soil using excavators ...consolidating the soil will increase the moisture holding capacity of the soil...via a capillary rise of the soil...to prevent the occurrence of fire." (Bernama, 2016: A1). Sarawak uses such a process virtually eliminating the chance of fires, whereas in Kalimantan Province of adjacent Indonesia is among the regions facing the most

serious problems due to peat fires, with the Air Pollution Index (API) reposted in some areas to be more than 2000 in March of 2016 where an API of 1000 is considered dangerous.

Soil management was carried out by draining the peat, compacting it, and then controlling the water levels to ensure good soil conditions and moisture levels resulting in better yields of palm oil. Indonesia has more than 4,000,000 hectares of abandoned peat land creating the opportunity for fires without proper soil management (Bernama, 2016).

In October of 2010, the Rajang River in Sarawak, at a length of more than 560 kilometers, was clogged with timber largely from the clearing of the forest for palm oil production. Reports emerged that there were navigation problems on the lower reaches of the river. Unusually, these issues occurred not because of high or low river levels, but because the river was choked with wood. Impressive images, from <http://hornbillunleashed.wordpress.com/2010/10/08/10352/> illustrate the magnitude of the issue (please see Figure #2, for example). The blockage reportedly extended for 250 km. The reason that the wood entered the river appears to have been intense rainfall on 6th to 7th October (2010), but the question is where the wood has come from. There are two likely sources of wood like this. The first is that a logging camp or store was inundated (unlikely on this scale); the second is extensive landslides. In Malaysia a huge blame game has played out over the cause of the disaster. The Land Development Minister, James Masin has claimed that the cause was logging in the catchment. Meanwhile, the state forest director, Len Talif, is blaming shifting rainfall patterns. The source area appears to have been Sungai Melatai in the Balleh subcatchment (AGU.Blogosphere, 2010).

ROUNDTABLE ON SUSTAINABLE PALM OIL (RSPO)

One of the rules of thumb in planting oil palm according to the RSPO is to avoid destruction to the environment – the rivers and streams, the erosion of the soil and the water catchment areas. A strip of land or forested area along rivers, must be at least 66 feet from the highest water mark is to be avoided. Further, the RSPO is a not-for-profit that unites stakeholders from the 7 sectors of the palm oil industry: oil palm producers, processors or traders, consumer goods manufacturers, retailers, banks/investors, and environmental and social non-governmental organizations (NGOs), to develop and implement global standards for sustainable palm oil. The RSPO has developed a set of environmental and social criteria which companies must comply with in order to produce Certified Sustainable Palm Oil (CSPO). When they are properly applied, these criteria can help to minimize the negative impact of palm oil cultivation on the environment and communities in palm oil-producing regions. The RSPO has more than 2,500 members worldwide

who represent all links along the palm oil supply chain. They have committed to produce, source and/or use sustainable palm oil certified by the RSPO (RSPO.org). Certified PSPO palm oil production amounted to 2.4 million hectares in 2016 (please see Figure #3).

The lack of successful implementation of such programs as the RSPO, include, from the 1980s through the 2000s, there were issuances of Provisional Leases to so-called planters and contractors. These leases were issued before any survey was conducted on the land, that were often peat swamps (Munan, 2016). In the clearing of these peat swamps, fires were set to clear the land resulting in noxious haze. On South Sumatra, Indonesia, for example, 72% of the fire activity on was on peatlands (Schonhardt, 2016).

Rivers are often polluted and clogged from forest clearing for the purpose of palm oil planting. Another example, the Sungai Pahang, the longest river on the Malaysian Peninsula, is now increasingly more shallow and may lose its historical standing as the longest river on the peninsula. Further, a total of 43 rivers or 9% of Malaysian rivers, mostly in urban areas, are polluted (Borneo Post (b), 2016). It has affected the water supply for the residents and has threatened the ecosystem of the area that includes most aquatic life that are not able to fertilize their eggs between the rocks due to the murkiness of the water (Borneo Post (b), 2016). The life of organisms (including fish) downstream, depends on the constant feeding of the river with debris. This debris includes leaves, twigs, branches, and whole trees, as well as the organic remains of dead animals. Debris not only provides food, it provides hiding places for all sizes of animals and surfaces for phytoplankton and microorganisms to grow. Without flooding and without a healthy riparian zone, this debris will be scarce. Adding to the problem, although debris might come from the river above a dam, it is instead trapped in the reservoir, and never appears downstream. The bottom level of the food web is removed. All in all, the loss of sediment and debris means the loss of both nutrients and habitat for most animals (chamisa.freeshell.org/dam.htm). Recently, scientists have explored the comprehensive ecological blueprint of river dynamics. They discovered that altering the complex 'biological machinery' with dams and diversions, leads to the long-term decline of the ecosystem (Robbins, 2016: D6).

As suggested by Lim et al. (2015), the success of sustainability efforts in Malaysia has met with limited success where the economic benefits of palm oil production have not fulfilled the commitment to many of the non-industrial stakeholders (see Figure #4). The existing palm oil production is economic focused rather than ecologically focused causing the disappearance of animal species and cultural values of those in the forest areas. The palm oil industry started with economic imperatives, rather than considering

ecological issues by converting forests for palm oil production damaging natural environments and thus disempowering the local indigenous community (Lim et al., 2015: 14). As mentioned earlier, the majority of the world's palm oil production is in Indonesia and Malaysia (see Figure #5).

CONCLUSION

According to Sayer et al. (2012:117-118) the first of the ecosystem principles adopted by the Convention on Biological Diversity is that conservation is a matter of societal choice (Sayer and Maginnis, 2005). As such, many tropical countries with large populations of poor rural dwellers will opt for oil palm rather than the natural forest. The overwhelming desire to escape poverty and pursue economic advancement, coupled with continuing consumption of palm oil globally, suggests a future with more oil palm and less forest. The challenge is not to stop oil palm expansion, but to shape its development to minimize impacts on biodiversity, carbon, local peoples' welfare and other related priorities. There are clear options for bringing degraded lands into production, improving yields, and providing incentives to stimulate smallholder innovations. Yet, much of the future expansion of oil palm will take place in regions where regional and local governance is relatively weak, spatial planning ineffective, and land tenure uncertain (Feintrenie et al., 2010). There are three principle recommendations that would make the largest contribution to sustainably oil palm production: (1) promotion of yield intensification to reduce the requirement for area expansion; (2) good governance relating to smallholder tenure security and forest conservation; and (3) promotion of smallholder organizations to redress the balance of power in negotiated agreements with commercial estates and milling companies. Oil palm expansion is ultimately driven by the consumer. Consumer behavior can, and has, somewhat, shaped the emergence of a more socially and environmentally aware industry.

[References & Figures Available Upon Request]

Deployment of Japanese Companies to Asian Countries: A case of Vietnam

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ABSTRACT

After the World War II, factories of Japanese companies have done overseas expansion positively. The reasons for the expansion were low personnel expenses, the ease of raw-material supply, and a large market etc. The factory has especially been positively relocated their plants to the countries in Asian countries; Northeast Asia, ASEAN and Southwest Asia.

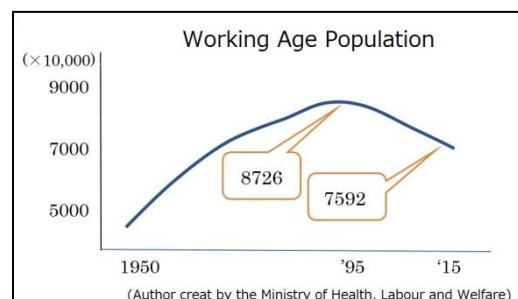
In Japan, the parts plants of automobile industry and home electronics industry located in the Tohoku district not only were suffered damage by the earthquake and Tonami which were generated in the Tohoku district in March, 2011, but received restrictions on operating time by the subsequent planned blackout. The automobile industry and home electronics industry moved their factories to the western part of Japan for reservation of operating ratio. The factories were moved to the Kyushu district (southwest of Japan). It is risk management of companies. Kyushu is close to Southeast Asian countries and suitable for sea transportation. The big earthquake occurred in Kumamoto and Oita in Kyushu in April, 2016. These two big earthquakes accelerated the company's factory relocation to Southeast Asian countries.

In recent years, development to Vietnam and Myanmar is active. Vietnam faces the South China Sea (Biển Đông) and also borders on China, a big market. Moreover, China is adjoined and the large market is cut down. Maintenance of an infrastructure is active and people's purchasing power is also upward in Vietnam. Early advancement department was the manufacturing department, but in recent years, not only the research department, but also retailers, restaurants, IT and venture companies are advancing to Vietnam.

This paper examines a future possibility in Vietnam while exploring the situation of the overseas expansion of Japanese companies, especially the advance situation to Vietnam.

Introduction

The balance of trade in Japan depends on the exportation of the industrial goods and the exchange. The production activities of the Japanese companies were sifted to overseas expansion in the production base from the domestic production. The reason is low personnel expenses, the easiness of the raw material procurement, approaching to a big market, declining birth rate tendency in recent years and so on.



These reasons for stepping forward brought about a factory move to the Southeast Asian nations specifically. Moreover, the domestic labor shortage became a problem with the decrease of the younger age group in Japan in recent years, and became the factor of the factory foreign countries developing.

Also, the parts factory which is located in the Tohoku district received big damage by the earthquake which occurred at the Tohoku district and the tsunami by it in March, 2011. By the stop of the nuclear power plant, the power company implemented a plan power blackout and the manufacturer had compelled to do a production stop and to do production adjustment. The Tohoku district where is close to Tokyo, was excellent location as the procurement base of the part. The company moved a production factory to Kyushu district in Japan to say that the probability of the earthquake occurring is low. Kyushu is located in the southwest of Japan and is near the Southeast Asian nations. However, the big earthquake occurred mainly in Kumamoto in Kyushu in June, 2016. Japan is on Circum-Pacific volcanic belt, so it is impossible to avoid an earthquake basically. The development to the Southeast Asian nations of the processing sector of the manufacturer accelerated by these two big earthquakes.

In recent years, the development to Vietnam and Myanmar is lively. Vietnam connects with Japan through the South China Sea and the East China Sea and is suitable for the marine transportation. Also, Vietnam neighbors China and it writes down a big market. In Vietnam, the service of the infrastructure is lively and national buying power is looking up too.

This paper shows the status of the overseas development of the Japanese company, the one to have explored status of stepping forward to Vietnam specifically, and to have reviewed the possibility of the future in Vietnam.

The trade of Japan

Japan is "the trade major country" as much as 4th of the world following America, China, Germany. Japan made the processing trade of which resources are scarce, and import most of the fuel resources and the industrial raw materials such as petroleum

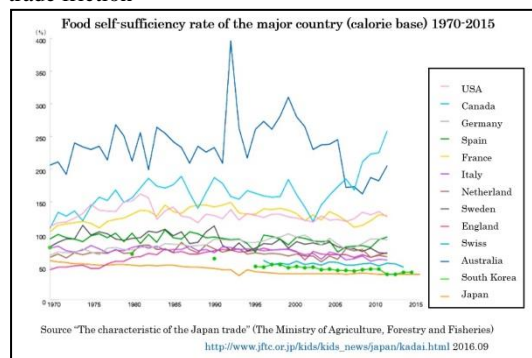
and so on from the foreign countries and process it, and commercialize and export triumphant and achieved economic growth but the trade structure of Japan resulted today via a wide range of changes. After the war, the molded-goods of the processing of raw material and material, the light industry and the sundry articles were export products, but in the 1960s, the heavy chemical industry such as the steel, the ship developed and the solid length large-sized industry product became the main force of the exportation. In the 70-80s, the competitiveness of Japanese industry rose substantially and the exportation of the processing construction molded-goodses such as electron and the electrical appliance, the transportation equipment, the precision instrument became a main force. In the times of the high-growth period in Japan in the 80s, the overseas expansion, the overseas local production of Japanese manufacturer were actively proceeded with from the fact that the trade friction by the trade imbalance got to occur continuously and so on. In the 90s, it became with the competitive era concerning the high-tech product of the high added value which needs advanced technical power and knowledge power such as the car and IT. Then, the manufacturing in Japan moved a factory to the Asia and changed to the form which Japan imports the products which have produced a product there.

At present, economy globalization times reaches, the new industrial fields such as the new energy such as bio technology and the photovoltaic generation are born, and the environment of the industry and the business is quickly changed.

Moreover new competitive eras such as the conclusion of the rise in the developing countries such as China and the Free Trade Agreement (FTA) of every country, and the industry in Japan and the trade structure face in the big turning point.

The problem of the Japan trade

There are problems in the trade in Japan; hollowing of the industry, food self-sufficiency rate of Japan, trade friction



Resources, the energy and the global environmental problem.

The overseas development of the Japanese company

At present, there are some reasons in the overseas development of the Japanese company.

1. Big market

In compare with the global market and Japanese domestic market, the scale is about 10 times as

different. Thinking simply, the gotten return is 10 times bigger is better for doing the same effort.

2. The product can be done in the focus.

The biggest merit in case of watching a global market and business's being developing out will be that it is possible to do a product in the focus.

3. It is easy for the fund and the human resources to gather.

The investment sum of venture business in Japan and US is different more than 10 times.

Development into Vietnam

In recent years, the Development into Vietnam by the Japanese company is lively done. At the number of the overseas bases, Vietnam is 4th place following China, Thai, the U.S. in 2015.

In ASEAN, Vietnam is the 2nd. And Seeing in the departmentalization, the sale is the 5th, the manufacture is the 3rd, R&D is the 3rd and the transportation is the 4th, all are a high rate. Cheap of personnel expenses, stable politics and society situation, goodness of the environment of the resident officer and so on are given as the merit of the Vietnamese advance.

Country and Area	2015 (n=895)	Rank	2014 (n=1,001)	Rank	2013 (n=1,119)	Rank	2012 (n=1,149)	Rank	2011 (n=1,602)	Rank
China	53.7	1	56.5	1	56.9	1	59.2	1	67.9	1
Thailand	41.7	2	44.0	2	47.0	2	41.2	2	27.9	2
USA	33.7	3	31.3	4	25.4	5	26.0	4	21.1	4
VietNam	32.4	4	28.7	5	29.6	4	25.9	5	20.3	5
Indonesia	31.8	5	34.4	3	35.0	3	32.0	3	24.7	3
Taiwan	21.6	6	21.0	6	20.0	6	21.8	6	18.5	6

Resource: "The Vietnamese economic conditions and the trend of Japanese company" (JETRO Hanoi Branch)

Most of the developing companies are manufacturing but as an infrastructure building in Vietnam is lively done, that the construction business industry develops, too.

Ranking of the function to attempt to Develop overseas

Rank	Sales	Production			R&D			Logistics
		general-purpose	high added value		new-product development	change of specifications for local market		
1	China 44.0	China 15.8	China 13.5	China 5.9	China 8.8	China 5.8		
2	Thailand 33.1	Thailand 10.6	Thailand 9.1	USA 4.4	USA 4.4	Thailand 4.6		
3	USA 29.6	Vietnam 9.1	USA 6.0	Vietnam 2.3	Thailand 3.8	USA 3.7		
4	Indonesia 25.9	Indonesia 6.7	Vietnam 5.4	Europe 2.2	Indonesia 2.7	Vietnam 3.4		
5	Vietnam 22.2	India 3.9	Indonesia 4.6	Thailand 1.8	India 2.5	Singapore 2.8		
6	Taiwan 18.7	USA 3.1	India 3.8	Indonesia 1.3	Vietnam 2.2	Europe 2.3		

Resource: "The Vietnamese economic conditions and the trend of Japanese company" (JETRO Hanoi Branch) n=895

Moreover, the sightseeing promotion policy of the Vietnamese government is increasing the opportunity of development by service industry. Also with a background of the developing economy, in population growth, the improvement of the level of the life of the people in Vietnam brings high quality pointing and the expansion of the demand is expected.

Conclusion

Vietnam has the merit of the investment for the Japanese company; market size, germinancy, the

stable politics and society situation, inexpensive personnel expenses, is the good of the life environment of the resident officer. In the future, Vietnam tends to expand as the production base and the market. Also, in recent years, development of business categories such as the architecture, the service becomes lively.

This time, the trend of the Japanese company which advances to Vietnam is reported mainly

In the future, I want to examine concerning with a local industry in Vietnam.

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Cooperation between Latin America and asia-pacific in the context of APEC: opportunities and challenges

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ABSTRACT

The purpose of this paper is to examine the potential for regional cooperation between Latin America and Asia with special reference to the role of APEC. It is divided in three sections. The first one examines the importance of APEC in the context of the world economy and the role of Latin America within this organization. The second looks at the depth of the economic interactions between these two regions and their recent performance. Special attention is given to comparing the regulatory environment using the results of the *Doing Business 2017*. The third section examines the current challenges and opportunities.

I. LATIN AMERICA IN APEC

APEC continues to be one of the most important regional forums, accounting roughly to 60 percent of the world's GDP, 50 percent of international trade and 40 percent of the world's population. As highlighted by Harinder Kohli, president and CEO of the Centennial Group Latin America, "If one looks at the long-term fundamentals of the global economy, APEC remains as important to Latin America today, if not more so, than when APEC was first formed. Asia has been, and is expected to remain the fastest-growing region of the world. It

already boasts three of the four largest economies of the world in purchasing parity (PPP) terms" [3].

Table 1 shows some of the main characteristics of APEC member countries. On the one hand, the difference in terms of the size of the countries is striking. The three largest countries (China, the United States and Russia) represent two-thirds of the Gross Domestic Product of the total membership. The participation of Latin America (Mexico, Chile and Peru) is quantitatively small: about 5% of GDP. In connection with the regulatory environment, measured by the *Doing Business 2017*, prepared by the World Bank [6], the diversity of situations is significant. At the same time, it is important to note that nearly half of APEC members (9 out of 21 members) are among the top 25. The level of per-capita income is also high, averaging USD 21 634. This paper expands the analysis of a previous piece of research [2] devoted to examine the role of the Trans-Pacific Partnership (TPP). Unfortunately this analysis is no longer valid, due to the recent changes in the US foreign policy.

Table 1: APEC KEY ECONOMIC INDICATORS 2015

Country	Date of accession	GDP (PPP) million current USD	GDP Per capita PPP current	GDP Growth Rate (%) Annual	Doing Business 2017 ranking
Australia	1989	1 082 380	45 514	2.3	15
Brunei	1989	29 969	70 817	-0.5	72
Canada	1989	1 588 596	44 310	1.1	22
Indonesia	1989	2 842 241	11 035	4.8	91
Japan	1989	4 738 294	37 322	0.5	34
South Korea	1989	1 748 776	34 549	2.6	5
Malaysia	1989	815 645	26 891	5.0	23
New Zealand	1989	169 960	36 982	3.4	1
Philippines	1989	741 029	7 359	5.8	99
Singapore	1989	471 630	85 209	2.0	2
Thailand	1989	1 108 108	16 306	2.8	46
United States	1989	17 946 996	55 837	2.4	8
Taiwan	1991	1 099 030	46 783	0.7	11
Hong Kong	1991	414 376	56 720	2.4	4
China	1991	19 524 349	14 239	6.9	78
Mexico	1993	2 194 431	17 277	2.5	47
Papau N Guinea	1993	21 385	2 865	8.5	119
Chile	1994	400 534	22 316	2.1	57
Peru	1998	389 147	12 402	3.3	54
Russia	1998	3 579 826	24 451	-3.7	40
Vietnam	1998	552 297	6 023	6.7	82

APEC		61 437 615	21 634	2.8	
World		113 653 547	15 470	2.5	

Source: Prepared by the author on the basis of data from the Asia Pacific Economic Cooperation and the World Bank Doing Business Report 2017 [6].

II. OPPORTUNITIES FOR TRADE AND INVESTMENT

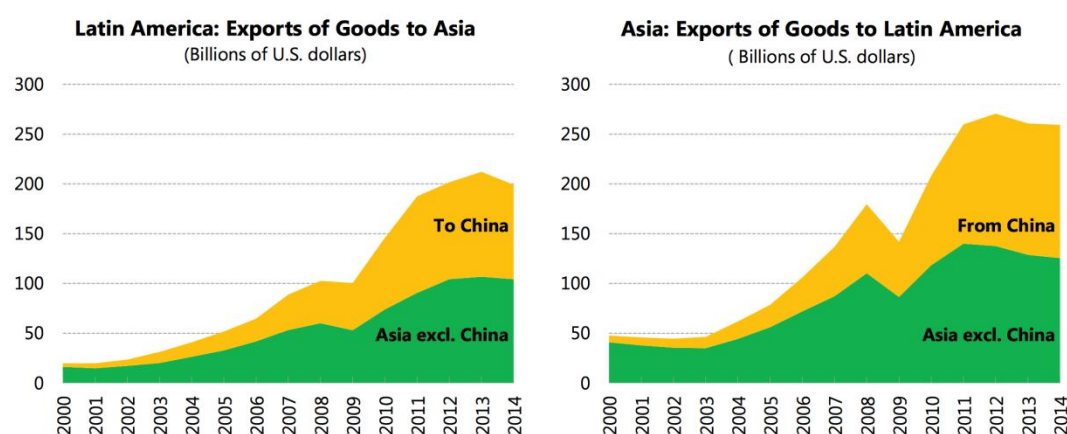
APEC total trade (goods and services) has increased more than 6.7 times to US 20 trillion between 1989 and 2015. Figure 1 shows the *substantial increase* in the value of exports between Latin America and Asia from 2000 to 2014.

One of the limitations that Latin America currently faces in its interaction with Asia *is not the volume but the nature* of its trade flows. Imports from Asia-Pacific consist of manufactures, while Latin

American and Caribbean (LAC) exports consist mainly of primary commodities.

Despite this, LAC is beginning to export a range of products to Asia-Pacific (fisheries products and pig meat; electronic microcircuits; telecommunications equipment and data processing machinery – among others). This growing trade suggests that Latin America is beginning to integrate into the extensive supply chain networks prevalent in the Asia Pacific region [1].

Figure 1: Trade ties between Asia and Latin America



Source: Min Zhu (2016) [5]

III. CHALLENGES AND OPPORTUNITIES

In terms of opportunities we see three lines of action: making use of existing platforms to advance cooperation between the two regions. For instance APEC could leverage its Economic and Technical Cooperation (ECOTECH) and Trade and Investment Liberalization and Facilitation (TILF) agenda. In a similar way, the Forum for East Asia-Latin America Cooperation (FEALAC) could serve as a venue for dialogue between the two regions [4].

Secondly, there are numerous specialized forums in both regions but they have little interaction despite addressing similar topics. A part of the South-South cooperation programs could be devoted to facilitating collaboration between them. Last but not least, regular bridges could be established between business schools, with an active component devoted to the exchange of students, researchers and teachers. Recent developments in information technology now allow effective ways of online collaboration that were previously unthinkable.

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The Role of Institutions and Strategic Resources in the Emergence of Multilatinas

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ABSTRACT

Multinational enterprises from emerging economies are entering international markets in unconventional ways and are becoming increasingly important in the global economy. Recent literature has identified the need to include Latin American emerging economies for context. The purpose of this paper is to develop a model which addresses gaps in the literature by examining roles of institutional factors on firm resources through analysis of internationalization efforts in Multilatinas. By integrating institutional theory and resource-based view, our model proposes home country conditions influence development of strategic resources within firms, and in turn drive internationalization efforts. Implications and future research are discussed.

INTRODUCTION

Emerging economies increasingly provide new market, investment, and sourcing opportunities for multinational enterprises (MNEs) [2] and in turn, receive larger proportions of global foreign direct investments (FDIs) [1]. Since 2005 the global economy has witnessed the emergence of modern MNEs predominantly from emerging economies [13]. These 'new' multinationals originate from heterogeneous country-specific contexts characterized by their unique social, political, and economic environments [10]. Research has shown that new MNEs from emerging economies are arising from fast-growing emerging economies, implementing accelerated internationalization strategies, exploiting current competencies, and exploring new ways to access foreign markets to drive FDIs [9].

Despite operating in inefficient economies with a high degree of government intervention in economic affairs, and a high degree of risk and uncertainty of institutional variables [20], Latin America provides a thriving business environment characterized by falling poverty, a booming middle-class and increasing commodity-based trade that are largely driven by the economic growth [15]. In this perspective, the term '*Multilatina*' refers to an MNE that is based in Latin America.

PROPOSITION DEVELOPMENT

Resource-Based View (RBV). RBV provides the framework for understanding the process of

resource development when firms engage in internationalization efforts. Expanding the firm's position using its strategic resources requires resource development in one market prior to entering a second. This notion is supported by Wernerfelt [19], who suggested that firms develop resources before going international. The development of a firm's capabilities and its ability to obtain and exploit available resources is contingent upon its operating environment [3]. This view is consistent with Conner's [6] assertion that the success of the firm depends on the environment in which it operates and that the firm's performance depends on the interaction of the firm's assets, the competitors' assets, and environmental constraints.

Institutional Theory. According to institutional theory, organizational structure evolves through an adaptive process [16]. According to this view, organizations respond to their environment by replicating its salient features and adapting them, over time, into their own structures. Therefore, we can posit that a firm's decision to develop strategic resources depends on the firm's institutional home country conditions. Specifically, Multilatinas develop distinctive advantages from an environment that is underdeveloped in nature due to a lack of institutional support and unstable environments [9]. These firm-specific advantages arise from their ability to cope with home country difficulties and allow them to develop a unique position to enter other emerging markets.

Political Risk. Political risk was found to be a crucial factor affecting Multilatinas' decisions to develop strategic resources that will help them respond to the host country's discriminatory policies, changing policies, and eventual expropriations of the firms' assets [18]. Thus, we expect that a high level of political risk will encourage Multilatinas to develop firm specific advantages that would help them succeed in politically unstable environments. In this context, we examine three firm capabilities that Multilatinas develop under adverse political conditions and institutional development: adaptation capacity, absorptive capacity, and innovation capacity.

Adaptation Capacity. An organization's adaptation capacity refers to its capacity to survive environmental conditions. The ability to survive in increasingly complex environments have a direct impact on the organization's long-term survival and

results in higher levels of adaptation [4]. Empirical evidence suggests that organizations with high levels of adaptive capacity operate in turbulent environments, are highly responsive to change, and successfully identify and exploit product-market opportunities [12]. Latin America's gaps in infrastructure, institutional development, and market efficiencies not observed in developed countries [17] suggest that Multilatinas operate in a turbulent environment. We posit that Multilatinas can and do adapt to this adverse environment, and as they adapt and seek further internationalization, they develop specific adaptation capabilities. Thus, we propose:

Proposition 1a: The lower the level of institutional development of the Multilatinas' home country, the higher the level of their adaptation capacity.

Proposition 2a: The higher the level of political risk of the Multilatinas' home country, the higher the level of their adaptation capacity.

Absorptive Capacity. An organization's absorptive capacity refers to the organization's ability to exploit knowledge that is assimilated from the external environment. Organizations develop absorptive capacity over time by acquiring and exploiting additional knowledge that may become available [5]. As Multilatinas operate in environments characterized by low business sophistication, low innovation, and adverse institutional framework [17], the quality of their absorptive capacity depends on their ability to assimilate knowledge from such adverse environmental conditions. This self-reinforcing behavior aimed at counteracting low institutional development is expected to help organizations develop absorptive capacity over time. Thus, we propose:

Proposition 1b: The lower the level of institutional development of the Multilatinas' home country, the higher the level of their absorptive capacity.

Proposition 2b: The higher the level of political risk of the Multilatinas' home country, the higher the level of their absorptive capacity.

Innovation Capacity. A firm's capacity to innovate depends on its organizational structure, internal processes, and organizational culture [11]. As firms develop its capacity to innovate, their success in responding to their environments is expected to increase. The focus on organizational characteristics emphasizes internal sources of innovation. Sources for innovative opportunities, however, are not limited to internal sources as changes in the social, political, and intellectual environment outside the organization also provide external sources for innovation. For example, changes in population, age structure, composition, employment, educational status, and income provide rewarding opportunities for entrepreneurs [7]. Latin America is characterized by increased population growth, is more sensitive to

changes in commodity prices and currency values, and most importantly, has large gaps in innovation [17]. We can expect that Latin America's unstable environment creates a demand for Multilatinas to develop innovation capacities that reflect their unique home country conditions. Thus, we suggest:

Proposition 1c: The lower the level of institutional development of the Multilatinas' home country, the higher the level of their innovation capacity.

Proposition 2c: The higher the level of political risk of the Multilatinas' home country, the higher the level of their innovation capacity.

Internationalization of Multilatinas. As firms develop strategic resources in their home country markets before engaging in internationalization efforts, resource positions will allow the firm to attain growth and profitability [19]. However, country specific environments will determine the development of resources that can be county-specific and/or firm-specific in nature [13]. Exploitation of strategic resources developed at home will allow MNEs to seek international markets, as measured by FDI [9].

When entering other Latin American markets, Multilatinas that have developed firm-specific capabilities discussed above are expected to be in a better position to overcome the liability of foreignness. This stigma of being a foreigner [8] is not expected to be crucial for Multilatinas as they operate in familiar environments. Accordingly, we propose:

Proposition 3: The higher the level of Multilatinas' adaptation capacity, the higher the level of their internationalization.

Proposition 4: The higher the level of Multilatinas' absorptive capacity, the higher the level of their internationalization.

Proposition 5: The higher the level of Multilatinas' innovation capacity, the higher the level of their internationalization.

DISCUSSION

Latin America's country conditions provide an environment that contrasts with that from traditional MNEs' home countries. In addition, Multilatinas that enter other Latin American countries will encounter fewer obstacles than traditional MNEs. To this end, our research propositions will help us shed more light on the effect of two institutional factors (institutional development and political risk) on the emergence of Multilatinas.

Considering the resource-based view, we propose three firm capabilities (adaptation capacity, absorptive capacity, and innovation capacity) that Multilatinas develop and use to enter other markets. We focus on external factors driving the development of such capacities. The prevailing unstable, turbulent environment that characterizes

Latin America is an ideal environment for analyzing the drivers of internationalization of Multilatinas. Since Multilatinas do not necessarily develop the same firm-specific capabilities compared to their counterparts from developed countries and tend to be more creative and innovative than traditional MNEs, our proposed research framework provides testable propositions to advance research of MNEs that are emerging from developing economies.

CONCLUSION

Given the dearth of research on MNEs emerging from non-developed countries with their turbulent and unstable operating environments, it is essential future research examine factors promoting firm capabilities to assist Multilatinas in their internationalization efforts.

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Web 2.0 tools for Virtual Reference Services in a university library

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ABSTRACT

The use of Web 2.0 tools amongst students has become popular for a number of applications. The academic libraries are no strangers to these technologies as they even acclaim their growth around the incorporation of such tools and technologies, in Library 2.0. One of the specific areas where these tools and technologies are proving useful is Virtual Reference Services (VRS). This quantitative study investigates the current Web 2.0 tool usage amongst under graduate students at the University of Namibia (UNAM).

INTRODUCTION

The University of Namibia (UNAM) is an African University situated in Namibia, it has a diverse range of education offerings amongst their 12 campuses, making it a significant University in Southern Africa. In an attempt to improve the Library's service offering, UNAM library is looking to help their students in ways that are convenient and accessible to their students. As a preliminary investigation into the development of a Virtual Reference Service (VRS) a quantitative study was conducted to find out:

What types of Web 2.0 technology tools are currently used by UNAM undergraduate students?

In an attempt to keep up with the times and remain relevant to the students of UNAM a VRS offers many benefits to the students, however to effectively meet the needs of the students it is important to better understand Web 2.0 tools used by students. This can assist the Library management to better plan their VRS and ensure familiarity of the VRS amongst the students.

LITERATURE REVIEW

Current trending developments in the Internet and Web environment has brought about many changes to the way in which we communicate, work, socialize, entertain and conduct our daily lives. It is these significant technologies that have opened the way for new services. Since the inception of the World Wide Web (WWW) in 1991, there has been much refinement and development into the current Web paradigm we experience today [14]. Currently we are in the transition between Web 2.0 and Web 3.0.

Web 2.0's main characteristic revolves around sharing and connecting wealthy content via numerous, synchronous, interactive and human-collaborative services [1]. Analysis from Meyers, Erickson & Small [12, p356] used the second

generation of Web technology to describe innovative ways of incorporating 'users' perspectives and experiences in designing content or creating new services. Because the Internet's openness and indistinctness allowed users as 'digital immigrants' to connect, create and publish online content instinctively, there is no holistic approach to differentiating the calibre of Web 2.0 in harnessing individuals knowledge and social intelligence collectively [16][1][11][12].

Taking from this concept of Web 2.0, the library has enhanced these applications and enriched their service offering in a paradigm known as Library 2.0. To signify the calibre of user-oriented platforms and media sharing applications in connecting, co-creating and deepening social knowledge in academic libraries, the term Library 2.0 was connoted in 2005 [11, p1]. Since then, this term reflects an innovative ground-breaking model in the academic library setting and the potential of integrating library-based enabling services within Web 2.0 social networks.

Noting the evolution of mass media applications, academic libraries are now defined as a 'system' or 'entity' that functions as an integral 'gateway' providing access to online information stored in numerous heterogeneous applications, databases, network platforms and systems [10][4]. Table 1 below identifies some of the major shifts in the library paradigms from Library 1.0 to Library 2.0.

Table 1: Evolution of Library 2.0 via Web 2.0 [11]

Library 1.0	Library 2.0
Read only catalogue	World catalogue with user tags, comments, reviews
Print brochures and newsletter	Team built Library blog with RSS feed
Library instruction & pathfinders	Intuitive services & streaming media
Physical walk-ins	Engage via Instant Messaging, podcasts on iPod & handheld devices (mobile phones)
Information library service is a core operation function	User services and human-mediated systems are core

As conceptualised by Kwanya, Stilwell & Underwood [8], Library 2.0 tools are designed to invite, anticipate and promote the use of library-based resources via a variety of web-based technological tools and communication systems. Objectively, the embedding of Web 2.0 tools in academic libraries signifies the integration of

innovative services as an effort to enhance a student's capacity building and knowledge development in a library environment. Notably, various operational concepts such as social networking; social bookmarking; social media and participatory technologies have been used interchangeably. These concepts are adopted in describing innovative ways of sharing information and exchanging tacit knowledge residing in human minds and database repositories systems via a defined system [9][11][5].

Retrospectively, some academic libraries, particularly in the developed nations were no longer seen as a 'place' filled with a physical collection, but viewed as an integral learning 'space' where knowledge is reconstructed, mounted and distributed for better use [10][9]. As further noted by Kwanya, Stilwell & Underwood [7, p70] and Brophy [4, p29] serving users with the right resources, using a variety of support services, ranging from print to handheld computing tools should become a service philosophy in many academic libraries. This service philosophy has encouraged academic libraries to become more service orientated and look to innovative ways to service their clients.

Faced with a challenge of justifying the usage of the much-anticipated academic library subscribed databases; a number of specialised virtual reference assistances were introduced to attend to instant questions and ready-reference answers [15][6][13]. Beck [3, p91] describes Virtual Reference (VR) as a service-oriented model integrated in academic libraries to enable "the use of computer and communications technology to provide a remote interaction between librarians and library users". Aimed to serve individuals learning needs with immediacy, informality and interactivity, 'Virtual Reference Services' (VRS) were introduced to ensure that students are provided with proper guidance in accessing and utilising academic sources ethically [10][2]. These VRS are becoming increasingly more important in connecting students to the library, creating spaces where they can seek assistance and understanding of library resources.

METHODOLOGY

A questionnaire was employed to gather data from the study population of undergraduate students registered across the 12 UNAM Library satellite campuses countrywide. A positivism paradigm was adapted to select the study participants using a convenience sampling technique from a sample population of undergraduate students who have been at the university for more than 12 months. The sample consisted of a total of 352 undergraduate students who were found in the library enquiring about library services at four user-centric areas: the Reference Desk, Circulation Counter Desk, Student Computing Services area and Subject Librarians offices. The study was carried out over a 6 week period. The data was captured and analysed in SPSS, the descriptive statistics are used to answer the research question.

FINDINGS

A total of 352 completed questionnaires were received from the 515 that were distributed to the 12 various campuses. The number of questionnaires distributed per campus was determined proportionally to the number of undergraduate students per campus. This study only targeted undergraduate students. The most responses received by a large margin was from the main campus in Windhoek with 122 responses.

Out of the 352 responses, a total of 44.3% (156) were made up of male respondents, while the remaining 55.7% (196) were female. Because a larger number of the UNAM population is made out of females (62%) a higher representation of females in this study was expected. 58.8% of the respondents, which is the largest representative belonged to the age group of 20-23 years, followed by those who were in the age bracket of 23-27 years with a total of 10.5%. As expected, only 10.8% of respondents' belonged to the younger age category of 16-19 years; an outcome which seems to correspond with UNAM student profile.

The data revealed that 84.37% (297) of respondents were busy studying towards an honours-degree qualification; a four year undergraduate degree which is the most common format in UNAM programs. Respectively, 14.2% (50) of respondents were busy with their diploma qualification which can be completed either in two-years or three years depending on the field of study, while 1.4% (5) of respondents were busy with a certificate.

Respondents who were visiting the library more than once a week were 51.0%, followed by 26.6% of regular library visitors (on a daily-basis). Notably, a smaller number of 1.4% were using the library for the first time during the data collection process period, while the remaining 7.1% belong to the group who rarely visited the library.

Figure 1 (below) represents a summary of the types of internet-based 'hubs' and communication devices facilitating access to communication platforms and internet-based resources. Results show that most of participants were using laptops with internet connections or mobile data (3G modems) (54.0%); mobile phones (39.5%); and home/work based computers (28.7%). A relatively lower usage of iPad/tablets (10.5%), private based computers (7.1%) and faculty based computers (6.0%) was noted; an outcome which indicates that only 16.5% relied on the library-based computers to access Internet based information.

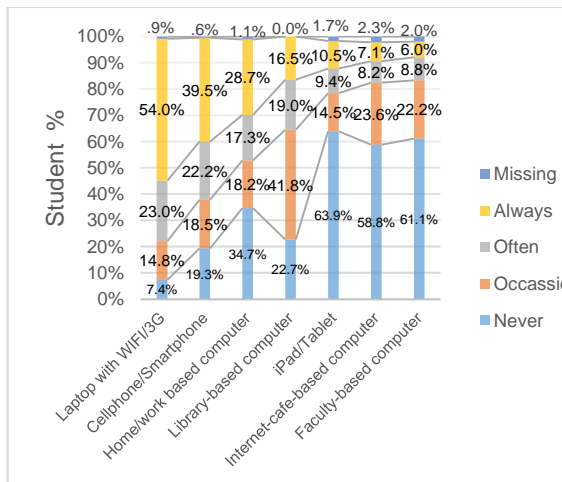


Figure 1: Types of internet-based resources and communication tools

Figure 2 illustrates the level of Web 2.0 tool awareness by the students. The level of awareness is important for determining what tools the library could target for a future VRS system. The Web 2.0 tool with the highest level of awareness was Facebook (95.2%), followed by YouTube (89.8%), WhatsApp (77.3%), Skype (73.6%), Wikis (73.3%) and Twitter (70.7%). The least awareness came from Podcasts and RSS feeds. The top 6 tools had an awareness of over 70%, making them good potential tools to be incorporated into a VRS.

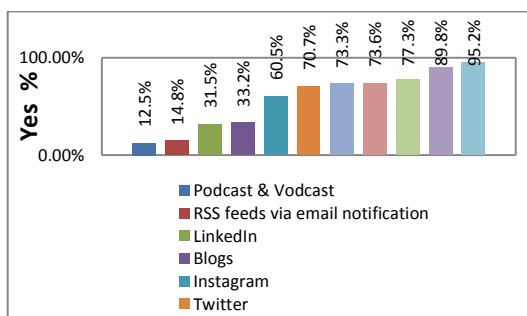


Figure 2: Awareness of Web 2.0/social networking tools

After dealing with awareness the next important aspect to take into consideration was Web 2.0 tool usage, as seen from the responses below the usage levels are below that of the awareness (which was to be expected). WhatsApp and Hangouts (49.1%) gained a monumental value and were clearly the most frequently used instant messaging chat applications. Undergraduate students used Facebook (47.4%), YouTube (33.0%) and Wikipedia (12.2%) most frequently to engage with UNAM Library. The library uses these platforms to deliver news feeds and exchange ideas by posting them on networking platforms. These platforms can be used to connect undergraduate students with appropriate information, and learning artefacts instantly with the relevant information according to their degree, subject and course choices.

CONCLUSION

Based on the representative data received from all 12 campuses, it seems that likely Web 2.0 tools to be considered for the VRS are WhatsApp and Hangout, Facebook, YouTube, Skype, Wikis and Twitter. The level of awareness was fairly high, while the actual usage levels remained under 50% (these figures are expected to rise in the future, based on global trends).

VRS do offer a number of benefits to their users which should have a positive impact on the library resource usage. University libraries looking to grow their resource usage and improve their service offering should seriously consider these tools as options. Prior to VRS development, a better understanding of the target market's web tool usage may prove highly beneficial in an attempt to cater for the needs of the target market.

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Available upon request

Strategizing Management Education in Response to Artificial Intelligence

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ABSTRACT

This review informs the positioning of management education in a disrupted global socio-economy. The authors relied on scholarly articles and intellectual trusts found among competitive industries. The stage is set where Artificial Intelligence impacts on human agency. Attention is drawn to information knowledge management and learning; the probable extinction of managers and shifts in providing management education.

KEY WORDS: Artificial Intelligence (AI), management education, business schools

INTRODUCTION

Scenarios on the impact of Artificial Intelligence (AI) on the global economy and society is hotly debated. At the core is the ability of humans to retain their authority within a dynamic, disruptive environment. Of concern is whether humans are subject to the illusion of having substantial control of their lives, assuming that managerial roles are too creative or smart to become redundant. We attend identifying ways in which managers' learning can optimise artificial intelligence. Motives behind competitive data assimilation and the advancement of robotics is examined. Finally, the future of management education, the roles of managers in the Fourth Industrial Revolution and the function and form of traditional business schools is considered.

RESEARCH METHOD

The authors relied on scholarly articles and leaders' views of competitive industries. Info was extracted mined using Leximancer 4 text-mining software.

REVIEW

Human Nature

In *Thinking, Fast and Slow* (2011) Daniel Kahneman posits that humans tend to base decisions on what exists. Thus, humans neglect relevant phenomena on which information does not exist. Kahneman argues that humans tend to ignore the role of chance in complex change and assumes that the future will mirror the past. The question arises whether humans continuously consider the impact of computers to outperform humans in thinking statistically. Emergent is that humans falsely believe in having substantial control of their lives.

Enter Artificial Intelligence

Narratives on the impact of AI has entered the public stage 1968 when Stanley Kubrick produced the movie *2001: A Space Odyssey*, an existentialistic

science fiction movie which explores the interface between humans and AI in the context of extra-terrestrial life. Public fascination was rekindled by George Lucas who released *Star Wars* in 1977, a space opera about the adventures of diverse species habituating galactic ecosystems. In 1999, the Wachowskis directed *The Matrix* about a simulated reality created by intelligent machines. Here, humans are subdued to extract body heat and electrical activity as a source of energy. The hero "Neo" learns of this and leads a rebellion against the machines. These and other movies broadened horizons shifting our perceptions from the simplicity of "little green men" to accept limitless possibilities. Moreover, robot movie stars introduced a humanoid dimension rendering AI as varied characters ranging from revengeful to loveable.

Reality Check

What is happening in our recognisable environment? Fact is that AI is significant in quietly changing our day-to-day lives. AI helps us to take perfect pictures, to safely park our cars and being annoyed by automated answering services. These and other examples stress the overarching need to understand how quickly and to what extent forms of AI will evolve. Gottfredson (1997) states that "there is now a large and robust body of evidence indicating that one's level of intelligence strongly influence's one's prospects in life... The rising complexity of everyday life has escalated the value of intelligence in realising life outcomes."

Carr (2014) in *The Glass Cage* on "Automation and Us" writes that "a more automated world result in the atrophy of important skills." Linking to Kahneman's perspectives, Carr concludes that since "higher" cognitive functions and holistic understanding typically draw on hands-on physical or social interaction with the world, it is folly to expect to automate only the "lower," unimportant cognitive aspects of a domain.

Elon Musk and Stephen Hawking substantiates these concerns with possible applications of AI in the military. Hod Lipson, a leading robotics Professor at Cornell University's Creative Machines Lab states that "robots that create and are creative" has succeeded in automating scientific discovery. Lipson cautions that "the solution is not to hold back on innovation, but we have a new problem to innovate around: how do you keep people engaged when AI can do most things better than most people? I don't know what the solution is, but it's a new kind of grand challenge for engineers."

A further risk AI poses is that existing inequalities may be increased by the rich and powerful arguing in favour of "the scarcity of time and resources"

(Brundage, 2015), reminding one of the counterarguments posed in *Capital in the 21st Century* by Thomas Piketty (2014). The MIT Technology Review of June 2015 speculates that the 2007–2009 recession may have sped up the automation of well-paid white and blue colour jobs performing repetitive tasks. Siu (2015) estimated routine jobs to account for 50% of employment in the USA with a “harsh affect on people in their 20s, many of whom seem to have simply stopped looking for work.” In *The Great Divide* economist Joseph Stiglitz (2015) argues that these global challenges are caused by a lack of liberating policy frameworks.

Variables which have triggering the global economic downturn prompted the Davos 2016 World Economic Forum deliberation on whether humanity is on the cusp of a Fourth Industrial Revolution. In essence, recognising the rise of an era of uncertainty. Says Marc Benioff, founder, chairman and CEO of Salesforce (a cloud computing company), “As a society, we are entering uncharted territory.” Less clear, however, is the impact this revolution will have on entire industries, regions and societies around the world. Will it be a force for good or evil? Will it provide new opportunities for all, or will it exacerbate inequalities? Former US Vice-President Joe Biden confirmed, saying “I believe, on balance, these transformations are changes for the good. But they come with real peril, and they require us to be proactive. For how will the warehouse worker who used to ship your order, or the salesman who used to take it, now make a living when he or she is no longer needed in that venture? On the other hand, many domains have already been suggested as either urgently in need of AI and robotics innovations (such as elder care, manufacturing, and sustainability) and others have been portrayed by many as areas to avoid automating (such as the decision to use deadly force in warfare). These examples hint at the hidden complexity of the seemingly simple question: what should humans do and what should machines do?”

Human Agency

Davos 2016 explored the dearth of human agency over the future and that understanding of AI drivers would be beneficial in consciously steering the future distribution of cognition between humans and machines. Moreover, that future operations will probably be run by AI controlling all supply chains with human contribution. Humans, however, would not run the whole show.

At the 2015 Association for the Advancement of Artificial Intelligence, Miles Brundage (2015) states in *Economic Possibilities for Our Children: Artificial Intelligence and the Future of Work, Education, and Leisure* that “clarity is urgently needed with regard to the susceptibility of jobs to automation.” Brundage (2015) argues that “it is highly important to monitor and theorize the rate of development and what is causing it.” In reviewing theoretical progress, Brundage (2015) conceives a global meta-theoretical construct aimed at alternatives to dramatically change the world economy with economic projections, alternative scenarios and plausible science fiction, public engagement on

progress in AI, and anticipating policy options such as government funding across AI research domains.

In a fascinating article on the *Evolution and Revolution in Artificial Intelligence in Education* Roll and Wylie (2016) sketched scenarios by means of 47 papers published in 1994, 2004, and 2014 in the International Journal of Artificial Intelligence in Education. Two parallel strands identified the evolution of education and a revolutionary process embedding technologies within students’ everyday lives.

Thus, human agency in the evolution of AI seems mostly restricted to academia often treasuring the perception of being the most intelligent beings on earth. Following, the strides made by the brain trust of the Steve Jobses and Larry Pages in the world will be explored.

Who owns the data?

Smartphones feed location and other info back to their mobile carrier and device makers. This development affects all continents, e.g. Sub-Saharan Africa mobile networks are as common as they are in the USA (PewResearchCenter, 2015).

Besides the transfer of personal information we are aware of, data is also gathered about our state of health, our choice of transport, our taxes, the value attached to essential and luxury goods and services, email, social media, video images, photos, traffic lights, weather services, public and leisure venues and events. All sourced and stored in someone’s cloud.

About a decade ago data flowed freely into car radios. Now, General Motors, BMW and Audi are rapidly enhancing digitally enabling their cars. Google and Apple are aggressively experimenting with Android Auto, self-driving cars, and Apple Car Play. All aiming to capitalise on high-speed wireless connectivity. Data therefore glues automotive innovations and shows why data ownership is fiercely competitive. Moreover, executives need to attend to what data their companies share, with whom, and who will claim ownership of that info. But, “*Competing for the connected customer – perspectives on the opportunities created by car connectivity and automation*,” reports that customers are less concerned with data ownership than the automakers think they are (McKinsey & Co., 2015). This reminds of the Kahneman warning that humans assume they have substantial control of their lives. Robots function on the algorithms derived from big data analytics which may well in the longer term challenge us for most of our jobs.

Flow of Information and Knowledge

Research on developments in information management reported an emerging shift in information knowledge management since the 1980s (Macevičiūtė & Wilson, 2002), shifting from re-writing exiting knowledge towards speeding up answering complicated questions. Sebastian Thrun (the mind behind Google Glass and the self-driving car) confirms, saying: “It’s crazy, no doubt about it. But what gets me is that today, a billionaire or head

of state on their smartphone has the same direct access to information as a homeless person has on a smartphone, or a person in Bangladesh or Papua New Guinea” (Catlin, 2015). The infosphere (Floridi, 2014) has indeed become immersed in AI and more tools are now required to help individuals cope with this heightened level of complexity.

Future Professors

Will Professors either adapt their approach to the shifting flow of knowledge and information, or become extinct? We may have not yet seen humanoid robots acting as teachers, but many examples of software products and services now assist students and teachers to optimise educational experiences. AI already automates basic education e.g. grading, thereby freeing up time to interact with students, to prepare for class, or professional development. AI already facilitates individualized learning through simulations, identifies room for improvement, tutoring - though not yet as good as human tutors in facilitating higher-order innovation. The Generalized Intelligent Framework for Tutoring (GIFT) has emerged as a standard for authoring, deploying, managing, and evaluating. Overall, AI alters the manner in which humans find and interact with information without even noticing the scale at which AI delivers or offer a relatively judgment-free environment (D’Mello, Blanchard, Baker, Ocumpaugh & Brawner, 2014).

Online learning emerged as a strategic driver, evidenced by the number of universities ramping up online offerings. New entrants and new partnerships, e.g. Academic Partnerships (Dallas), partners on a global scale in expanding access to high-quality higher education. MIT has recently partnered with Harvard University in edX. Former Stanford Professors (Andrew Ng and Daphne Koller) have started Coursera, which now partners with several universities. Recent rapid expansion of online learning yielded many expensive lessons, such as the effectiveness of MOOCs which consist essentially of boring lectures posted on the Internet. Also, the success rate of students and actual assessment of whether intended learning outcomes were actually achieved. These shortfalls suggest that online education needs rethinking of how to optimise WWW potential as a teaching medium. Insightful developments now include Udacity, which shows a man hand writing on a whiteboard and then take students into the action zone where learning will be applied, followed by on-the-spot problem-solving. The major shift observed is from achieving grades to mastery in problem-solving.

Will Professors become redundant? What is clear, is that core teaching and learning has shifted towards the facilitating higher order learning and support, human interaction and hands-on student experiences, e.g. the “Flipped Classroom” (Newtonian Talk, Virtual BattleSpace, Virtual Medic, Sudoku).

Managers and Management Education

Managers believe that their roles are too creative or smart to become redundant. In “*How AI could eliminate (or reduce) the need for managers*”, Guerrini (2015) quotes Devin Fidler (2015) who

coined the term iCEO, a virtual management system that automates complex work by dragging-and-dropping assembly lines and run them from a dashboard. Fidler explains that they figured the possibility “to sit down at a laptop, launch an iCEO and ‘code’ the preparation of a project worthy of a Fortune 50 company into existence — without needing anyone to act as the project’s manager? The answer: “yes.” Fidler (2015) illuminates that current corporate structures have existed for around 200 years, designed on 18th century tools to maximize scale and minimizing transaction costs. “Now that structure is being disrupted by the advent of technologies which can accomplish many of the projects we associate with corporations. With traditional organizations no longer necessary to create many things at scale, they are likely to be challenged by a new generation of alternative technologies for getting things done. Senior executives must wake up to this inevitability and join the conversation on the future of work, which only seems to be taking place at the policy level” or “watch as their roles are automated out of existence” Fidler (2015).

Fifteen years ago, Harvard Business School professors argued that the disruption posed by ICT would affect leading business schools as much as any other organisation...” (Christenson & Overdorf, 2000). They posited that “business schools must fundamentally rethink their business models if they hope to thrive in the future” and asserted that the university “leaders must also vigilantly guard against their becoming more and more out of touch with the mainstream and therefore increasingly irrelevant (Christenson & Overdorf, 2000). While institutional missions will evoke a different response to this dilemma “the dilemma [must] be addressed by our nation’s leading colleges and universities.”

By 2015, the paradigm shift “driving a Darwinian-like evolution of economic models based on the provision of ICT services” shows that leading business schools are “turning to third parties to reuse their solutions rather than to lock valuable capital in sourcing hardware and software” – as predicted by Ashal (2013). In providing a comprehensive review of the business school ecosystem of the past, present and future, Thomas, Lorange and Sheth (2013) suggest what skills business schools should impart to their students and how they might accomplish this goal by emphasising the business model of business schools (sustained funding and its allocation) and the impact of a globalised world where management education has become localised. In reflecting on practical solutions, Thomas (et al., 2013) draws attention to distance education in emerging markets, the half-life of knowledge (estimated at five years) and preparing students to find solutions to contemporary management and associated social challenges at a global level. Also, to instil lifelong learning as a life skill. They conclude, stating “whether or not deans have the stomach and expertise to drive though reforms that are needed, remains a moot point. But the outcome will be crucial.”

CONCLUSION

The review fostered a broad understanding of opportunities and threats AI poses to management education and to society at large. These truths demonstrate that management education is shifting from an emphasis on the past and the present towards educating a responsible manager able to cope with disruptive change. The attributes for future-orientated providers of management education include: i) The contribution of global meta-theoretical construct of a dramatically changing world economy in terms of economic projections and scenarios, public engagement and government, and notably, policy directives across AI research domains; ii) a clear value-proposition of programmes, services and knowledge production and iii) well-considered partnering with organisations beyond their traditional boundaries and in promoting their global reach.

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Information overload and perceived productivity amongst tertiary students

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ABSTRACT

Information overload, as a result affects individuals' ability to effectively process the constant flow of information and perform required tasks. Over decades, technological advancement has increased the production of information, leading to increasing levels of information overload. Recent research propose that the abundant flow of existing information and how it interrupts the manner in which people conduct tasks can affect *decision* making, productivity and how individuals perform tasks. The purpose of this study was to determine the perceived relationship between information overload and perceived productivity amongst Information and Knowledge Management undergraduate students at the University of Johannesburg (UJ). The sample used consisted of 205 undergraduate Information and Knowledge management students. The collected statistical data was analyzed using SPSS software. The data suggests that the availability of a large number of information streams does not have a noticeable effect on the perceived performance of the students in the sample.

INTRODUCTION

With the constant increase in information and data through the interconnectivity of people, more time is spent filtering and processing information [7]. This can have an effect on the productivity of people. "Current research suggests that the surging volume of available information - and its interruption of people's work can adversely affect not only personal well-being but also decision making, innovation, and productivity" [4].

Information overload was first introduced as a concept in 1970 by a psychologist Alvin Toffler in a book entitled *Future Shock* [8]. Currently highly active social networks that are accessible through electronic devices keep us constantly connected, causing potential welcome distractions from tasks [3]. In the past, problems experienced regarding information were those of scarce usable information, while the problem today, is that of information overload [6]. Computers today are common because of their ability to produce, manipulate and distribute information at a much faster pace than people can process it [6].

Adegbilero-Iwari [1, p757] argues that information overload can be caused by factors such as; the tasks at hand which require completion, the nature of information and the likelihood to misuse

information technology such as the Internet, social media and e-mail. Young people are the warmest embracers of mobile devices that are equipped with a number of information intensive applications [1, p757].

LITERATURE REVIEW

Information users dismally fail to assimilate information because of its large quantity [5, p52]. As the measure of data streaming into our lives has expanded exponentially, we get ourselves pushed from the diversion, intrusion and weight which this determined stream of data places on us. Information overload can have a negative impact on individuals as it comes as an interruption to a task or an activity that has to be performed, especially now with the existing wide range of technologies that deliver information regardless of the receiver's geographical location or time. Similar to an observation made by [5, p52] reveals that, information overload normally manifests in situations where an individual's competency to using information to carry out their tasks is hindered by the amount of relevant, valuable, information available at their disposal. It is in this regard that information overload is normally associated with the individuals processing ability.

People are dependent on information to better understand the world in which we live in, for good decision making, to get things done, and to learn about what we affect and what affects us. The importance of information makes it necessary to manage information in such a way that enables the ease of access and its use. However, challenges are encountered once the quantity of information exceeds the filtering capacity of the individuals [2, p143].

Hoq [5, p52] is also of the view that the effect of little or no information to process normally leads to poor decisions. Therefore, it is of paramount importance that any increase in information is actually in parallel with the processing capacity of individuals in order to enable them to make good quality decisions. However, an individual can only process information to a certain level and when it has been reached it then automatically dampers the ability of good decision making. Hoq [5, p54] believes that there is more than one causes of information overload. In reality there are five

significant causes of information overload, and they range from; “multiple sources of information, too much information, difficult to manage information, irrelevance or unimportance of information, lack of time to understand information”.

RESEARCH DESIGN

A quantitative data collection method was used, in the format of a questionnaire. Convenience sampling was used to achieve the responses from 205 undergraduate Information Management students at the University of Johannesburg. Analysis was done through SPSS. The descriptive statistics are reported in the findings.

FINDINGS

As far the general demographics go, a total of 205 participants from Information Management 1st year, second year and third year classes completed the questionnaire. This survey was also conducted on two campuses (Auckland Park and Soweto). From the participants 70% were between the ages of 19-21 years of age. From the participants 59% were Males and 41% were Females. As expected, 96% of the students were registered in the Faculty of Management (the home Faculty for the Information Management module).

From those participating in the survey, a total of 87% owned a smart phone, 72% had a laptop, 50% owned a tablet and 24% had a desktop computer at the place of residence. Overall it seems that the group of students was fairly well connected. UJ does have a policy that insists that all 1 year students have a device to connect to the Internet to conduct their academic work. 72% of the students claimed that they had a smart phone prior to enrolling at UJ. The students were asked where they were accessing the Internet (from what location); 47% were using the Internet on campus, 32% from their home or place of residence, 16% from the library, 5% at a café or coffee shop and only 0.5% were using the Internet at work.

The students were asked to self-assess their academic performance, this was important to understand how they perform and investigate if information overload is affecting their performance. 62% of the students claimed they were performing above average, 22% claimed they were adequate, 11% claimed they were exceptional and only 5% were battling to cope. The students were also asked if they were able to finish their work on time indicating 50% claimed Always, 36% Sometimes, 12% Rarely and 2% Never. The students were asked if they were confused about what information to use is best, 48% indicated Yes, while 42% indicated Occasionally and only 9% indicated No. 39% of the participants indicated that they very often find it difficult to focus.

Table 1 shows the information viewing activity per hour. The most notable activity is highlighted in red, according to the responses, 12% looked at their text messages 30 times or more every hour, WhatsApp usage seemed exceptionally high with 23% of the

students looking at their messages 21-30 times an hour and 24% checked their messages more than 30 times an hour. Another mentionable responses recorded was 24% checking their Facebook feeds 21-30 times per hour.

Table 1: Information stream usage per hour

Frequency per hour	Text SMS	Emails	WhatsApp	Instagram	Facebook	Twitter
Less than 10	55%	66%	29%	55%	45%	78%
10-20 times	26%	20%	24%	22%	23%	13%
21-30 times	8%	8%	23%	17%	24%	3%
More than 30 times	12%	6%	24%	7%	8%	6%

Table 2 shows the resources for collecting information for University related work. The most used source of information was a search engine, followed by the library database, ebooks and books and magazines,

Table 2: Resources used to collect information

Resources	% of usage
Search engine	88%
Library database	68%
Books and magazines	49%
eBooks	58%

The participants were asked if they had sufficient time to process and filter information, which helps gauge to some degree the potential feeling of overload, 42% indicated they had sufficient time to process and filter, while 42% indicated occasionally and 16% claimed they did not have sufficient time to process and filter information. The participants were asked if they were able to resist replying to a text message, indicating only 23% were able to resist responding, 33% most of the time, 36% occasionally and 8% were unable to resist responding. The participants were also asked if they received too many messages, 32% indicated No, 29% Yes and 39% Occasionally. Lastly the participants were asked if they were able to distinguish the difference between useful and distracting information, most of them (62%) were able to distinguish the difference, only 3% claim they could not distinguish and 35% Sometimes.

IMPLICATIONS OF FINDINGS

From the above descriptive statistics it is very difficult to determine whether the students experience information overload, some indicators do suggest they are potentially challenged by the increase in information and media channels, in many cases students are looking at their phones or other devices as much as 30 times or more an hour for messages (difficult to determine what effect this

has one their productivity). The self-assessed academic performance seems favorable as most of the students saw their performance as above average and the ability to finish work on time seems adequate (50% Always and 36% Sometimes). One trend that is noticeable is the change in communication flow and the increased amount of information that is shared with others. This could potentially be something for Universities to lookout for and possibly look creating support for those who believe they are not coping.

CONCLUSION AND RECOMMENDATIONS

The main objective of the study was to determine the relationship that lies between information overload and perceived productivity amongst tertiary education students at the University of Johannesburg. Likewise, according to the findings, the researchers have found it difficult to establish the relationship between information and productivity and performance amongst those participating. A considerable challenge was the development of items to assess the concepts of information overload and productivity. This may create an interesting area for further research.

However experience and evidence shows a continual increase in information flow as society becomes more and more connected, more data is generated each day. This does pose a potential challenge to students at universities.

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Circulation Type Farm Waste Management System Environmentally Friendly and Economical IPC System

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ABSTRACT

Growing problem of waste management has progressed with the evolution of industry and human life style, and the insect power compost (IPC) came to attract attention in recent years as an effective alternative for the livestock manure management. The system is expected to mitigate environmental issues, utilize recyclable resources and reduce economic burden of the farms.

The protagonist of IPC system is the maggot and its principal constituents are expected to become the substitution of some of the major ingredients inevitable for the survival of humankind.

The potentials and the recent activities of the IPC system are introduced in the following chapters.

I. GLOBAL SUSTAINABILITY: Population Increase, Food Demand and Environmental Pollution Issues

According to a report issued by the United Nations Food and Agriculture Organization (FAO) in 2013, the population of the Earth is expected to exceed 9 billion by 2050 and food shortage is alarmed.

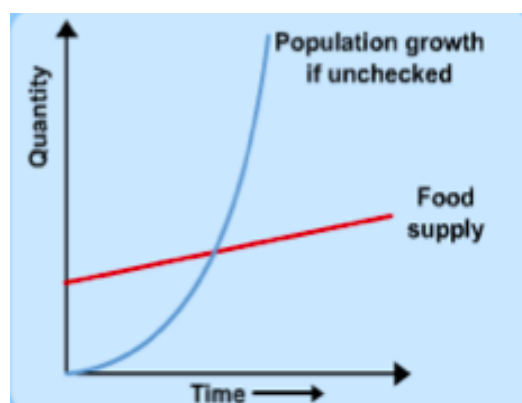


Fig. 1 Growth of Population and Food Supply

As the scale of livestock industry continues to expand to meet food demand of the growing population, the livestock manure problem has become one of the major issues for environmental pollution. Amongst livestock environmental problems, odour and water contamination both caused mainly by livestock manure are particularly serious and require immediate solution, therefore livestock environmental problem may be rephrased as livestock manure management problem.

The manure treatment method differs depending on the forms of the manure either liquid or solid, and livestock species, inappropriate handling of the manure such as open-air dumping and lagoon storage becomes the source of water contamination and offensive odour. While the improvement of storage system is pressed, appropriate manure treatment system can be expensive and it is a factor to put pressure on the business conditions of livestock farms.

Livestock manure compositions such as organic matter, nitrogen, phosphorus and the like pose a direct threat to water quality of river and groundwater, but nitrogen, phosphorus and potassium are nutrients indispensable for crop growth. As the nutrients are lost from the soil after harvesting agricultural crops and the fertilizer shall be added to the soil to continuously grow crops, organic fertilizer improves physical and biological properties of the soil and activates soil fertility.

For this reason, taking measures to prevent lagoon leakage, overflows and inappropriate discharge of manure that cause water contamination, eutrophication and water permeation into groundwater are stressed and effective utilization of livestock manure as soil improvement agent and fertilizer is desired.

Livestock environmental problem shall not remain as a mere countermeasure, but it shall be considered as the opportunity to review the way agriculture ought to be and to promote natural circulation of agriculture and to enhance self-sufficiency feed system.

II. Fishing Industry Challenges

In the climate of world fishery output peak in the 1980s, and world population and food demand increase, assuring sustainable aquaculture production is receiving worldwide spotlight. However, the feed cost which accounts for 80% of aquaculture production is the crucial challenge. The price of fish meal has quadrupled in 20 years due to the impact of catch decline of anchovy/sardine, its main raw material, caught in South America for the climate change, and consumption increase of marine products for health consciousness in developed nations and for improvement of dietary level in developing nations. Researches on nutritious and stably suppliable insects as the alternative for the

feed that consumes a large amount of sardines continue.

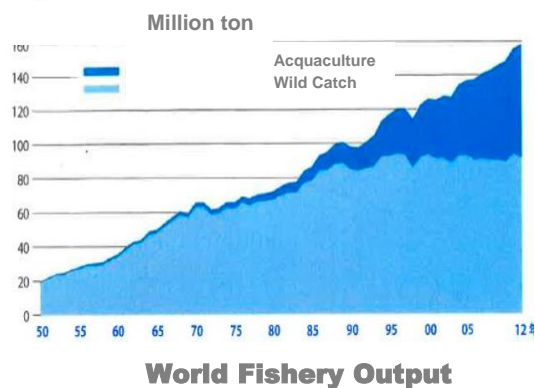


Fig. 2 (Japan Fisheries Agency)

III. IPC – Insect Power Compost

Whilst public image of the housefly larvae or maggots farmed by using livestock manure is filthy and unhygienic, research to use them as the ingredient of the feed for farm-raised fish has been conducted. This measure reduces the consumption of fishmeal whose main ingredient may also be consumed by humans and accelerates decomposition speed of livestock manure by larvae into fertilizer. It may be one of the viable solutions for food shortages and environmental problems.

Houseflies may be regarded as more environmentally friendly as the maggots decompose 10 kg of swine manure, increase body weights and produce 1 kg of larvae, and 3 kg of fertilizer. They leave nothing to be wasted and save cost for waste disposal.

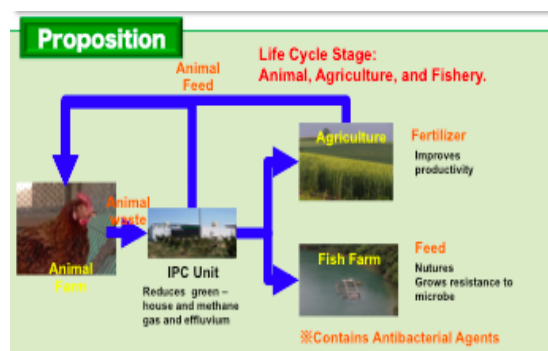


Fig. 3 Life Cycle Stage – Livestock, Agriculture and Fishery (E's Inc.)

From 2014, E's Inc. operates housefly farm facility in Kagoshima (1 M heads) which raises the most number of swine in Japan to substantiate the applicability of the company's IPC (Insect Power Compost) plant. In theory, it can be assumed that farmed larvae using manure from Kagoshima and neighbouring Miyazaki (766,000 heads) will produce enough maggots to replace about 30% of fishmeal for domestic use.

Housefly eggs laid onto 3000 kg of solids separated from animal waste, leftovers and water from 1000 swine in the IPC plant hatch and become larvae in 8 hours, continue growing into maggots in 3 to 7 days and move to the dry area. The solids are decomposed with larval digestive enzyme, lose moisture and turn into organic fertilizer. In other words, 3000 kg of solids produce 300 kg of live larvae and 1200 kg of high performance organic fertilizer.

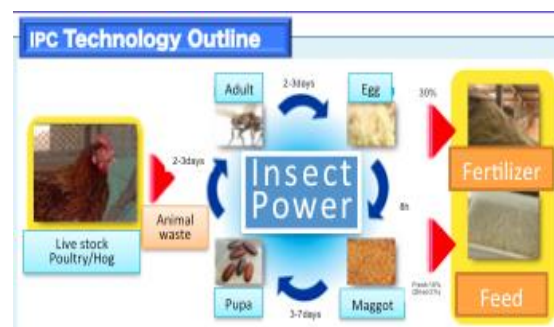


Fig. 4 IPC Technology Outline - Recycle Type Waste Management System

Ehime University has been working on the research for aquaculture feed using insects mainly houseflies since 2008. Ground dry maggots and pupae containing about 60% of crude protein and about 20% of crude fat, with their amino acid composition similar to that of fishmeal have sufficient utility value as raw ingredient for feed. Farmed red sea bream fed with 2.5% of housefly pupae substituting 10% of fishmeal grows faster, and its oxidative stress alleviated and mortality rate lowered. It suggests that housefly larvae contain substances that improve immune system of fish and potentially livestock and poultry making them less susceptible to diseases.



Fig. 5 South Ehime Fisheries Research Center, Ehime University

Also, the organic fertilizers produced this way are rich in larval digestive enzymes and possess antimicrobial components and susceptible antibody against plant pathogens.

IV. FUTURE CHALLENGES AND ANTIMICROBIAL PEPTIDES IN PRACTICAL APPLICATION

Organisms of antimicrobial peptides contained in larvae produce resistance factors as a defense mechanism against microbial infection. According to recent studies, it has been reported that slowing down of antimicrobial peptide production is a complication of bacterial infections, and the organisms are effective for bacteria, fungi and viruses, as well as cancer cells. Application research in various fields is under way, and development in food and medical fields is expected as an alternative to a chemical antimicrobial agent that may cause adverse effects on the human body and the environment when used in large quantities.

Current cost structure of IPC plant deployed in Japan is 200 yen per kg (USD 1.8) including labour, supplies, utilities and the facility costs. In order for the production cost per kg to be reduced to approximately 132.5 yen (USD 1.2) and secure constant revenue for the farms, labour cost needs to be reduced.

As the biggest challenge for operating IPC plant in Japan is the high wages, it may make more sense to run the operation of the system overseas with lower labour costs or develop more efficient automated IPC plant that requires least human involvement.

However, the issue is expected to resolve once practical application of extracted larval components in medicines is executed and the value of maggots is reviewed and appreciated.

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An Empirical Analysis of Promotion Standards in the Operations Management Discipline of UK Academic Institutions

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ABSTRACT

In this paper we examine the research requirements for academic tenure and promotion schemes within the Operations Management discipline. We focus on leading UK research schools and monitor the research productivity of active academics in prominent Operations Management and Operations Research journals. Drawing from various online resources we create a database of career path and publications data for these academics, and develop a number of respective quantitative indices for each promotion stage. This way we manage to empirically measure research productivity and research quality within the Operations Management discipline in the UK. Results on research productivity are presented for three promotion periods, namely, from obtaining the Ph.D. to the first promotion, from the first promotion to obtaining professorship status, and thereafter.

INTRODUCTION AND LITERATURE REVIEW

This research attempts to shed additional light on academic tenure and core requirements of promotion schemes in academic settings in the Operations Management discipline. Promotion requirements are important both for the quality of research conducted and for the future of the field at large. We focus on the Operations Management/Operations Research (OM/OR) discipline in leading UK¹ research schools and monitor the publication productivity of active academics in prominent OM/OR journals. We do so for each of the following promotion periods: from Ph.D. completion to first senior promotion (equivalent to the level of Associate Professor), from first senior to second senior promotion (equivalent to Professorship) and from Professorship and onwards. We draw from various online resources to create a database consisting of career path and publications data. We then develop quantitative indices to empirically measure research productivity and research quality per each promotion period at an aggregated level.

Academic literature provides a number of reasons for evaluating research output. First, hiring, promotion and tenure decisions for individual academics are driven by such evaluations. In fact, literature suggests that faculty research productivity is the dominant factor when allocating rewards such as promotion and salary

increments [3]. Second, ranking and funds allocation for schools, research teams, and journals are further based on evaluating research. Thus, metrics for assessing the research contribution of academics, departments, and journal outlets have been researched widely in many disciplines. Relevant research has been conducted within the OM/OR field and a number of studies have appeared that evaluate OM/OR journals through either peer-reviewing, citation analysis, or hybrid approaches ([9][7][2][4][11][8]). Other studies focus on capturing research productivity trends and reveal a significant growth in OM/OR research productivity over time [5]. There has also been great interest in measuring the influence of individual researchers and institutions within the OM/OR field ([10][1][6]).

In light of the importance of understanding promotion standards in academia, the aim of our research is threefold: (1) to unveil how tenure requirements vary for each academic period (from young researchers to newly-tenured academics to established senior Professors); (2) to understand how tenure prerequisites evolved over time; and (3) to capture trends of promotion requirements within the OM/OR discipline. This research thus can serve as a useful reference for academics, Deans, and other decision makers. More specifically, we initially discuss quantitative promotion requirements, which are derived from the analysis of our data.

METHODOLOGY

We have included in the project's database all senior (equivalent of Associate Professor and above) OM/OR academics of those UK schools that appear in the database of UT Dallas' Naveen Jindal School of Management as leading in OM/OR research from 1990 onwards. A total of 47 UK schools appeared in the UT Dallas list, whose faculty has published since 1990 at least once in the following prominent OM/OR journals (included in the UT Dallas journal list): Operations Research, Journal of Operations Management, Manufacturing and Service Operations Management, Production and Operations Management, and Management Science. A total of 371 UK OM/OR faculty members were subsequently identified in these schools by searching the official websites of the universities. For the identified academics, we collected career-related information available online (position and title, career path and timeline, academic field and main research interests, publications, etc.) and we verified the collected data through a series of diverse publicly available resources (such as official university websites, personal

¹ Academic tenure was abolished in the UK with the 1988 Education Reform Act; we, therefore, focus on senior promotion schemes of permanent contracting, equivalent to those of Associate Professor and Professor, namely Senior Lecturer and above.

webpages, the Scopus database, Web of Science, Google Scholar, LinkedIn). For the purposes of our research, complete information from secondary data was available for 111 academics, resulting to a sample containing 30% of the total observations of the initial population.

We then created multiple indexes, aiming to capture the research productivity of academics and the research quality of their publications for each of the promotion periods described above. Throughout this process, the calculation of indexes was based on the OM/OR journals' rankings of the respective ABS Academic Journal Quality list valid in each case at the year of promotion (i.e. the list of 2007 was utilized for 2007 promotion year and all years downwards- in the absence of former official lists; the list of 2008 for 2008; the list of 2009 for 2009; the list of 2010 for years 2010-2014; finally, the list of 2015 was utilized for 2015 onwards). Statistical analysis demonstrates how promotion requirements change across promotion periods. Most importantly, it highlights the evolution of promotion requirements over time, and reveals promotion trends within the OM/OR discipline. Indicative descriptive statistics are presented in TABLE 1.

as 3 and 0,71 publications ranked as 4 or 4* were required to reach the desired milestone. The average number of 3-4* papers published per year to achieve the 1st promotion is 0,51. This result is compatible with the findings of [10, pp.53], who found that "an average of one refereed article per year would place the individual among the most actively published in the field... two articles per year, among the elite". The average quality of 3-4* publications to achieve the 1st promotion is 3,16. Average Quality is an index of values within the range of [3, 4], designating the average ranking of publications in question on the basis of the respective ABS Quality list valid each time within the period of interest. Notice that for the calculation of the index we excluded zero values, i.e., those academics that have reached 1st promotion in our sample having zero publications in OM/OR journals of ranking 3-4*. It's further worth noting that 27 academics (24,3% of the sample) do not have any publication in 3-4* journals in the period prior to their first promotion. Also, among the 111 academics only 26 (23,4% of the sample) have published in 4-4* journals before they reach the milestone of tenure (first promotion).

TABLE 1

Variables/ Indexes	N	Min	Max	Mean	Std. Dev.
Entire Sample to 1st Promotion					
No of years to 1 st promotion	111	1	26	7,68	4,802
No of papers (ranked as 3) to 1 st promotion	111	0	16	2,90	3,191
No of papers (ranked as 4/4*) to 1 st promotion	111	0	11	0,71	1,856
Average No of authors per paper to 1 st promotion	84	1,00	4,67	2,7575	0,85638
No of Journals per year to 1 st promotion	111	0,00	5,00	0,5114	0,65807
Quality to 1 st promotion (journals ranked as 3-4*)	84	3,00	4,00	3,1644	0,29448
Professors to 1st Promotion					
No of years to 1 st promotion	44	1	26	7,86	5,056
No of papers ranked as 3 to 1 st promotion	44	0	16	3,07	3,830
No of papers ranked as 4/4* to 1 st promotion	44	0	4	0,55	1,130
Average No of authors per paper to 1 st promotion	34	1,00	4,67	2,3444	0,75961
No of Journals per year to 1 st promotion	44	0,00	2,00	0,4393	0,48282
Quality to 1 st promotion (journals ranked as 3-4*)	34	3,00	4,00	3,1847	0,33581
Professors from 1st to 2nd Promotion					
No of years from 1 st to 2 nd promotion	44	1	24	6,75	4,895
No of papers (ranked as 3) from 1 st to 2 nd promotion	44	0	19	3,59	4,099
No of papers (ranked as 4/4*) from 1 st to 2 nd promotion	44	0	4	0,64	1,102
Average No of authors per paper from 1 st to 2 nd promotion	39	1,00	4,00	2,4544	0,71455
No of Journals per year from 1 st to 2 nd promotion	44	0,00	3,00	0,7120	0,59112
Quality from 1 st to 2 nd promotion (journals ranked as 3-4*)	39	3,00	4,00	3,2410	0,37170
Professors from 2nd Promotion until today					
Average No of authors per paper from 2 nd promotion until today	39	1,75	6,50	3,0662	0,83322
No of Journals per year from 2 nd promotion until today	44	0,00	3,60	1,0402	0,82830
Quality from 2 nd promotion until today (journals ranked as 3-4*)	39	3,00	4,00	3,4438	0,32457

RESULTS

From the table below, we see that academics with a rank above that of the Associate Professor level (or equivalent), the average number of years required to achieve the 1st promotion (equivalent of Associate Professor - the milestone of tenure) is 7,68 years. Within this period, on average, 2,9 OM/OR publications ranked

If we track the advancement path of the 44 academics in our sample that have achieved a Professorship status, the average number of years from receiving their Ph.D. to achieving their first promotion is 7,86 years. On the other hand, less time (6,75 years) was required from first promotion to Professorship. For the first promotion, 3,07

papers ranked as 3 and 0,55 papers ranked as 4-4* were required. However, more papers ranked as 3 and 4-4* (3,59 and 0,64, respectively) were required in order for these academics to reach Professorship after their 1st promotion, though in comparatively less time. For this group of academics, the average number of 3-4* papers per year to first promotion was 0,44, from 1st promotion to Professorship this increases to 0,71 and from Professorship onwards becomes 1,04. This designates an increase in productivity at higher ranks. For faculty currently at the professor level, the average quality of 3-4* publications to first promotion is 3,18, increasing to 3,24 from first promotion to Professorship, reaching finally 3,44 from Professorship onwards, designating also an increase in the quality of the publications as time goes and faculty reaching higher academic higher ranks. For this group of professors, 10 (22,7%) had no publications in journals ranked as 3-4*, whereas 11 academics (25%) have published in 4-4* journals until they reached their first promotion. In addition, the last two promotion periods (up to Professorship and beyond), 5 academics had no publications in journals ranked as 3-4*.

FUTURE RESEARCH

The research will be extended by testing the following hypotheses: (i) the research productivity of OM/OR academics increases as they advance to higher ranks; (ii) the research quality of academics' publications increases at higher ranks; (iii) collaboration of academics differ significantly in different academic ranks; and (iv) the research productivity and the time required to achieve tenure in recent years differs significantly than before.

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Supply Chain Materials Flow and the Use of Information Technology

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ABSTRACT

The objective of the current study is to discuss the use of information technology in enhancing the materials flow in supply chain management. The flow begins from the raw material and it moves through the chain of supply. The materials may move either domestically or globally. Therefore, organizations may gain benefit by employing appropriate available technology to manage the movement of materials effectively. The optimum utilization of technology will enhance cost and customer satisfaction. The paper will discuss technology pertaining to materials flow of supply chain including: Radio Frequency Identification (RFID), Automated Picking and Put Systems, Automated Transport Systems, Robotics, Warehouse Management Systems, Drone, and other technologies.

INTRODUCTION

Supply Chain Management has gain a significant visibility in last decade and it is becoming a vital function of organization. Since globalization is becoming an integral part of many organizations, supply chain has been receiving importance within the organization. Recently, upper management and executive of many organizations have strong supply chain management background. Supply chain management describes the coordination of all activities starting with raw materials, production, warehousing, logistics, and gaining highest level of customer satisfaction. With increasing importance of sustainability, supply chain plays a vital role in recycling or reverse supply chain.

A supply chain may include suppliers, manufacturers, distributors, wholesalers and retailers working together to deliver products and services to final consumers. The objective of supply chain management is to enhance organizational performance as well as improve customer satisfaction by efficiently delivering products or services to customers while each participating organization in the channel earns appropriate profits [1]. Additionally, the objectives of supply chain management include maximization of responsiveness and flexibility to customers; minimization of cost, cycle time reduction, and access to inventory as well as maximizing capacity

utilization and return on assets. A supply chain is a network of retailers, distributors, manufacturers, logisticians, warehouses, and companies, which are engaged in manufacturing and shipping products or services.

Supply chain management is a systems approach of managing the entire flow of information, materials, and services from raw-material suppliers through manufacturing facilities and distribution centers to the final consumer. Most importantly, supply chain management involves the flow of material, information, and finances in a network consisting of manufacturers, distributors, suppliers, and customers. Rai et al [2] suggests that integrated information technology infrastructure enables firms to develop higher-order capability of supply chain process integration. This capability enables firms to split information flows from physical flows, and to share information with their supply chain partners in order to create information-based approaches for superior demand planning, for staging and movement of physical products, and for streamlining voluminous and complex financial work processes. Materials flows may be viewed as one of the most inherently complex issues because it, involves the movement of intangible and tangible goods that range from raw materials to finished goods to be delivered to customers.

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A Study of Airline's Ancillary Revenue Growth Strategy in The Era of Technologically-savvy Travelers

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ABSTRACT

Ancillary revenue today is a large and crucial part of airlines' revenue, especially of that produced from baggage fees and onboard sales of food and beverages. However, it can be observed that there remains the potential of growth as efforts continue for airlines to pursue a larger profit. Meanwhile, passenger behavior and passenger expectations have changed in the past decade, due to change in the medium of information and technology;. digital, mobile and social technology have enabled passengers to remain connected regardless of geolocation. According to Friedrich, Peterson and Koster, an emerging new generation called "Generation C" has been observed; the C initialing their attributes "connected, communicating, content-centric, computerized, community-oriented, and always clicking." To encompass this potential market, the next up-coming category for airlines will be internet connectivity, provided using Wi-Fi services. This paper will discuss the strategy of grabbing the hearts of these potential customers who may well become game changers of the airlines industry.

INTRODUCTION

The concept of Ancillary Fees emerged in 2205, when the LCC Ryanair began charging all checked baggage. Today, ancillaries range across a wide variety of sales, including onboard sales of food and beverages, baggage fees, assigned seats or seat upgrades (including extra legroom seats on exit rows), billing of call center support for reservations, credit card fees, sales of rights for priority check-in and screening for security, early boarding privileges, in-flight entertainment, fees for onboard Wi-Fi, and the list goes on.

This movement has also influenced legacy carriers; American jetliners such as United Airline, US Airways and American Airlines had begun charging baggage in 2008 to make up for the shrunken market after the 9/11 attacks. Ancillary Revenue was considered to be the best strategy for reconstruction. Crude oil prices are currently at 51.74USD as of March 16th, 2017, peaking at 120USD in 2008. Regardless of the drop in prices, airlines continue to struggle with accommodating this sharp price change, and with the growing problem of labor costs among fixed costs, improving cost efficiency for sustainable management is a large issue. Some carriers are introducing energy-efficient aircrafts such as B787, B737MAX, and A320NEO to reduce expenses, however the dominant choice for the majority is to increase Ancillary Revenue. Alex McWhirter comments in Business Traveller Asia Pacific (2016): "Faced with declining yield (revenue per seat), Dubai-based Emirates have commenced to introduce ancillary fees as a means of raising more cash. Emirates implemented a charge for

advanced seat selection for Economy Class Special and Saver fares with a ticket purchased on or after 03 October 2016. According to Emirates, fuel had been its biggest expense over the past year, at \$5.4 billion and 26 percent of operating costs, while the strong US dollar had eroded its revenues by \$1.6 billion, and its profits by \$1.1 billion." This change in policy by Emirates really was the first of its kind; as a rich full service carrier.

On the other hand, there are LCCs that do not charge baggage fees, the largest potential revenue of ancillary, such as Southwest Airlines which continues to be profitable. There are also bold measures taken to increase customers by both. Full Service Carriers (FSC) and LCCs: Brian Sumers comments in SKIFT (2017): "Two major U.S. airlines have started selling no-frills discount fares that do not permit most passengers to bring large carry-on bags to stow in the overhead bins. United and American designed their products to compete with fares from ultra low cost U.S. airlines, including Spirit Airlines and Frontier Airlines. Spirit and Frontier sell deeply-discounted tickets, but charge for bin space for larger bags."

Can this strategy of cutting down on customer services, such as unbundling and charging carry-on bags, be supported by the consumer market? The author will proceed to examine the current young generation, which will eventually become the main customers of all airlines, and how they may affect ancillary revenue strategies with internet connectivity and Wi-Fi accessibility.

Leaping-Advancements in Onboard Internet Connectivity

Today's passengers expect that Inflight Entertainment and Communications (IFEC) not only enable constant connectivity from the airport of departure to the airport of arrival including when up in the air, but also that they are reliable, have high bandwidth performance, even at an altitude of 35,000 feet.

It is currently possible on many airlines for wireless devices such as smartphones, tablets, and laptop computers to access e-mails, update SNS posts, and browse the internet just as on land. Though it may seem we have learned to accommodate these services over a period of time, IFEC has only been around for several years; companies such as Gogo, Panasonic Avionics, and Row44 provide these internet services onboard via satellite, by sending the strongest signals directly towards aircrafts, which could only be possible with recent technological advancements.

According to the research from 2015 by SITA's Airline IT Trends Survey, "66% of airlines will offer passengers more wireless choices in-flight by 2018, compared to only 28% today." Recently, on the other hand, the in-flight connectivity market is showing growth in the pursuit for greater bandwidth, better connections and

more speed, greatly exceeding the predictions of the study.

Technologically-savvy Travelers

Giovanni Bisignani, former director general and CEO of IATA, predicts that as the current customer generation ages, a massive wave of young “technologically-savvy travelers” will gradually take their part as the target consumer (2013). In order to fully understand what pleases, attracts, grabs their hearts aboard and ties them to ancillary revenue, perhaps some describing is in order. Generation Z (Gen Z), relative to the concept of Generation C, points to the generation born between 1995 and early 2000, when the internet and computers were the norm; more accommodated to mobile devices than the post-1980 born Generation Y (Millennial Generation) (Beall, 2016). This generation is truly technologically-savvy, far more than any former generation.

Alexandra Levit comments in the New York Times that despite their obvious technology proficiency, Gen-Zers seem to prefer in-person interaction over online interaction and are being schooled in emotional intelligence from a young age (2015). There are also cases of entrepreneurship among this generation, where “An 8-year-old has his own YouTube channel on which he reviews new kids’ toys and video games, garnering over 750 million views since the channel debuted and USD 1.3 million a year.” (IBM Report, 2017).

What is noteworthy is that this generation is not only proficient in using computers and mobile devices, but also liberal and socially active in movements and voices. Malala Yousafzai, who raised awareness of the necessity of education for women and peace and was shot by a Taliban activist in the head, miraculously surviving the attack, describes how strong this generation can be, as she was awarded the 2014 Nobel Peace Prize at 18 years old. The same can be seen in the research of Jeff Fromm, a Forbes contributor, which states that pivotal Gen-Zers’ are becoming more involved in social activism at a much earlier stage in life (2016).

What will tickle these Gen-Zers’ fancy? IBM Institute for Business Value reports the following behavioral pattern: Access to product information, — such as peer reviews, and product specifications and vendor ratings, which — empowers them to be smarter shoppers (2017). It’s important to know how Gen-Zers spend their time, what devices they use and what they expect from their brand experiences. What is important is to provide valuable sophisticated service, and send messages respecting individuals. The collective research by IBM of Gen-Zers across 16 nations also indicate the following: dictating or imposing on them is undesirable, and developing programs and initiatives to understand younger Gen-Zers as influencers will allow them to help shape brand messages. In the U.S. alone, consumer spending on Gen-Zers totaled a whopping USD 829.5 billion in 2015. Though Gen-Zers currently do not possess a large budget, it is mentioned their influence is extremely strong against the purchases of families. It is crucial for airlines to take action by respecting Gen-Zers, and also work to maintain the brand image, if one is to survive against the coming era of technologically-savvy travelers.

Airline Brand

According to Shashank Nigam, CEO of SimpliFlying, a brand is an intangible asset, and qualitative factors play a major role in building this asset (2016). If an airline delivers what it promises, interacts with its customers consistently and responsibly over time, while continuously innovating, people will continue to vote in favor with their wallets, their respects and their affection. Using the digital environment as a tool, which Gen Z is proficient in, will contribute to constructing one’s brand. David Aaker raises the following 4 digital characteristics: Involving; digital programs can get communities involved by providing topics for commenting. This active participation in a program attracts people far stronger than passive advertisements. Rich; there is a lot of information that can be posted on a single website. Personal; each visitor can have a personalized special experience. Reliable; online content is considered more reliable than mainstream media, due to the extended quantity and quality of content (2014).

In order to construct a connection between airlines and Gen-Zers using the digital characteristics to one’s advantage, it is necessary that the Customer Service Division is designed around their taste, and ultimately gain brand trust. Interestingly, there is already an airline pursuing this commitment: According to Nigam, the mission of Southwest Airlines is dedication to the highest quality of Customer Service delivered with a sense of warmth, friendliness, individual pride, and Company Spirit. Today’s generation of customers knows Southwest delivers excellent, responsive customer service on social media channels (2016). It can easily be imagined that with Southwest’s attitude, Gen-Zers will act as influencers by actively advertising the airline “experience” with a positive and appealing message through posts and blogs. Their words on Twitter, Facebook, and Instagram will spread immediately; perhaps even live onboard.

One way to achieve this is to provide free and stable onboard Wi-Fi; this also is currently being pursued by another airline: Grant Martin of Skift points out that Fly-Fi is now free across the entirety of JetBlue’s fleet, which should make any Wi-Fi-dependent traveler happy. JetBlue is opening up all of its Fly-Fi Wi-Fi for free fleetwide, approximately 225 aircrafts (2017).

HMGAAerospace also mentions that Japan Airlines is upgrading the current 15 minutes’ free in-flight internet campaign, to a completely free internet service on all domestic flights, equipped with in-flight Wi-Fi system (2017). Albeit this campaign will only be available until 31 August, customers can enjoy free programs by using their own Wi-Fi devices.

CONCLUSION

Though Gen-Zers currently do not possess a large budget, it is mentioned their influence is extremely strong against the purchases of families. They acquire and possess information, and they know how to use it. It is not a cheap investment for airlines to construct an onboard internet connection environment, however it is absolutely crucial that airlines not consider Wi-Fi connectivity an Ancillary Revenue; for allowing Gen-Zers to use their mobile devices as much as they want midflight is the key to true loyalty.

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Online Factory Shops Option for Sewing Cooperatives: A Manufacturer-Retailer Model

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ABSTRACT

Small manufacturing enterprises struggle continuously to gain access to larger market bases, when they are only accessible from a basic website or they work facilities. Building a website is a good thing but no longer sufficient to attract clients and for generating sales in this digital age. In this project we propose a conceptual framework on how can cooperatives build and implement their online shops. Literature on cooperatives and e-commerce has been engaged in this paper to support the idea proposed here. The internal and external factors influencing an online shop option are also investigated here. E-commerce was pioneered by systems engineers and it is important that engineers continue to direct the ideas of how can E-commerce technology support the establishment of e-factory shops which can enhance market access for cooperatives.

Keywords – E-commerce, factory shop, sewing cooperatives

I. INTRODUCTION

Selling of goods and services has become more competitive given the online shops and online malls [23]. The growth of online stores and shops is due to the advantage offered by these alternatives, which is to buy products and services from the comfort of one's home and the ability to compare similar goods and services from many online shops [24]. The above explains the impact of e-commerce (electronic commerce), which is defined transactions that are executed electronically between companies, consumers and between consumers [1], business and the public sector [2]. In 2012 the value of e-commerce sales of manufacturers in the United Kingdom risen to £157 billion pounds compared to £128 billion in 2008 [3] this shows that consumers have grown into looking for goods and services online. The top 10 e-commerce active countries are China, United States, United Kingdom, Japan, Germany, France, South Korea, Canada, Russia and Brazil [4]. Amongst the developing economies is India with retail e-commerce which was at a value of \$ 5.2 billion in 2014, but still far too low compared China, Brazil and Russia who are member countries of BRICS [5]. Online catalogues which are used by well-established enterprises to service a wider market given the size of the online market. Clothing manufacturers such as Cape Union Mart, Factory Shop Hub and other international brands are generating substantial revenues from online sales [6]. Some of the online clothing factory shops sell corporate wear, which is an attractive market. On the online factory shops a

customer is enabled to generate a quotation, place an order and make a purchase. These also enable customers or clients to specify their product designs with a minimal need to be in contact directly with the factory staff [25]. Sewing cooperatives rely on customers who are within their proximity or reach to generate sales, this advantage may soon disappear as local businesses and consumers are exposed to other products online which may offer better quality clothing items [26], on this note e-commerce has also led to an intensive competition. Moreover, the emergence of smart cities gives an opportunity for engagement in communities regarding small business support and with government [7]. Although there is not yet a universal definition of a smart city we refer to that of the Business Dictionary, which defines a smart city as a “developed urban area that creates sustainable economic development and high quality of life by excelling in multiple key areas such as economy, mobility, environment, people, quality of life which can be done through strong human capital, social capital and with sound ICT infrastructure [8]. This paper presents approaches based on the review of reports on smart cities project and it suggests ways in which sewing cooperatives can engage in e-commerce in order to align with the current economy and the city revitalization strategies. Gauteng City Region in South Africa has a Townships’ revitalization strategy which supports manufacturing and production in townships [9]. In light of creating a smart economy the Gauteng Department of Economic Development supports local production initiatives through cooperatives and other small enterprises [10]. The strategy is obsessed with innovation and ensuring success of the cooperatives, which are seen to be vehicles for entrepreneurship [11]. Our research question, is how can online factory shops support the idea of city revitalization? This question is based on the demand for local clothing and preferential procurement of cooperatives by private companies, government institutions and individual customers. The success of cooperatives is still important in smart cities, but this can only be achieved if they constantly adapt to changing technology and provide some online shopping experience [27]. The objectives of this paper thereof are;

- To provide ideas about the role that e-commerce can play in aligning sewing cooperatives with the current landscape of the clothing industry in growing city regions.
- To identify the implications of online factory shops to engineering and operations methods in sewing cooperatives and factories.

- To identify the external and internal factors which should be taken to account when a cooperative is planning to pursue an e-factory shop.

The remainder of this paper consists of a literature review which defines the terminology used here and the literature background to this topic as well as key findings in the literature about online and e-commerce experience. A conceptual framework presenting the external and internal factors to be considered when pursuing an e-factory shop is included and a research method is presented. Implications and recommendations are included in the last sections.

II. LITERATURE REVIEW

The production facility need not to be in the same geographical location as the trading location of a manufacturing enterprise [12]. Traditionally manufactured goods were distributed through wholesalers and retailers, or sold directly by the manufacturer to the end user [13]. The virtual environment of trading became reality since early 2000s and it has advanced, that it cannot be ignored by any manufacturer regardless of its size [14]. E-Commerce is both complimentary and a new form of trading location for manufacturing enterprises and retailers [15]. Trading online is termed as e-commerce, an online factory shop is another form of an e-commerce platform [2]. Information Communication Technologies enhance the ability of small and medium enterprises to compete globally wherever they are [16], this paper seeks to unpack the need for sewing cooperatives to consider e-factory shops, which are shops that would also inspire business-to-business trade between cooperatives and their [1]. According to OECD report e-commerce in a form of E-factory shops enable manufacturers or businesses to tap into the global market [16]. An e-shop refers to the use of a web based market space to take orders, allow customers select or suggest choices, generate quotations, make payments and is also a platform to make special requests for product designs [15]. Online shopping presents customers with an opportunity to share their experience through what is termed an eWoM [22] (electronic Word of Mouth), which refers to reviews and recommendations by experienced buyers to potential or undecided buyers about which e-shops to consider based on their previous experiences, therefore offering a great customer experience on a e-shopping platform is key for its success [17]. Small enterprises, such as community based sewing cooperatives employing less than 100 people often have limited funds, and which has limitations also to their ability to improve operations and achieve growth in general [18]. Launching virtual clusters for knowledge sharing and support among cooperatives can empower them to understand the concept of an e-shop [19]. Small businesses are often reluctant to adapt Information Technology based resources due to lack of access to professional skill and limited knowledge [20], also the adoption of IT in general is key to unlocking e-commerce opportunities for small enterprises [21]. Although IT is key to unlocking online selling opportunities, this is also reliant of the customer's confidence and experience with buying online [38]. The online platform is a shared space and if an online first time buyer encounters a negative experience this may lead to a dislike of online shopping and prevent any further participation in online shopping, therefore enterprises attempting to have online shops they have an obligation to protect the space by providing

reliable online shopping facilities. The technology dependent lifestyle of youth and ageing adults is an external influence to the intention of buying goods and services online [39], in case of a clothing co-operative this may also be influenced by the fact that co-operatives are not global brands but can be reached through online factory shops should they opt to open one. Although lifestyles impact on people's choice of shopping online there are other motivating factors which co-operative enterprises may need to take into consideration, such as a people's belief in the work of co-operative movements and their values may influence the decision to buy from co-operatives' e-factory shops [40]. Co-operative E-factory shops or online factory shops are a disruptive concept and can be costly to implement which may require the consideration of blog shops which would allow co-operatives to tell their stories while selling their goods or services [41]. The following section is the research methodology, which presents the approach used to analyze the external and internal factors of establishing an e-factory shop and thereafter is the presentation of literature findings supporting the suggested conceptual framework of an e-factory shop.

II. METHODOLOGY

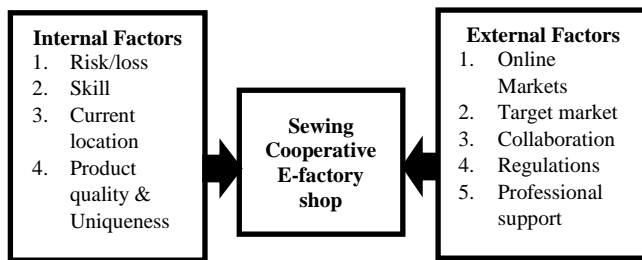
In this paper we use existing literature and research work to explain and support the e-factory shop concept as presented here, entailing the internal and external factors to be taken into consideration when a sewing cooperative in this instance is planning to establish an e-factory shop. Reasons why an e-factory shop is more relevant and attractive were unpacked in the introduction as well as in the literature review, are also given attention in the discussion section. A substantial amount of research is available in this area, but is not specific to sewing cooperatives and the nature of manufacturing enterprises which they are. An empirical study with at least 200 sewing cooperatives would be done in this area to assess their perception, attractiveness and hindrances towards the adoption of an e-factory shop, as this is only work in progress [35]. The Smart Cities Network Report, South African Smart Cities Network Report, E-Commerce Report and Gauteng Economic Development Revitalization Strategy were considered in this paper.

III. PRELIMINARY MODEL

The following framework is supported by literature and is also discussed in this section to provide some understanding of underlying internal and external factors to be considered when establishing an e-factory shop for a cooperative.

Figure: 1 Factors to consider in E-Factory Shop Establishment

A cooperative has to assess the risk and cost associated with an establishment of an e-shop. Although it seems more convenient, it requires an effort to make it successful. An internal or an organizational skill is essential for handling the technical details of an e-factory shop and to ensure that the shop serves the purpose of stimulating demand for the products on offer. Physical



location to a certain extent plays a role on the success of an e-shop as a client or consumer may expect delivery within a particular period of time and which can be met based on the geographical production site and courier services. The product quality and its unique features play a key role in making an e-shop more attractive, popular and have return buyers.

External Factors

These factors are equally important as the internal factors to be considered by a cooperative. Small clothing manufacturers need to define their online market and their target market based on their products. In the case of cooperatives, the potential to collaborate with other sewing cooperatives through an e-shop should be explored by cooperatives in a same cluster as well as the opportunity to establish a central e-factory shop. Sewing cooperatives are also unique as they are driven by social objectives and part of their objective is to empower women, this could be a selling point for their e-factory shops. Regulations still apply to online shops, which relates to taxes, consumer rights and to protections of buyers' information, this has to be considered by all cooperatives planning to launch an online factory shop. An e-factory shop has numerous advantages, such as gaining direct access to a wider market selling traditional wear to a larger market and also gaining the opportunity to learn more about the market. Finally, an e-factory shop may also reduce the frequent visits by customers to the production facility where production and sales take place in a case of small cooperatives.

IV. DISCUSSION

Sewing cooperatives aim at attracting both local and international companies as clients. In South Africa the Proudly South African campaign of production encourages cooperatives to increase their output [28]. However, the increase in output does not guarantee high revenues and demand. Therefore, accessibility on an e-factory shop is recommended as this gives a cooperative an opportunity to develop virtual products and graphics which will enable clients to have an idea of what a sewing cooperative is capable of and from that point make decisions [29]. Small Sewing cooperatives and other manufacturers of the same size do not have great capacity to handle customers frequenting their production facility [37]. However, an e-factory shop could be accessible to clients from all over the world and also could reduce the strain on cooperatives workers for receiving orders from a production facility and may also

allow a sewing cooperative to use their resources for production and improvement of an e-factory shop [30]. It is recommended that graphic design specialist with interest in small enterprises and systems engineers investigate the possibilities of tailor-made e-factory shops for cooperatives [31]. Cooperatives are unlike private companies, they embrace social principles, inclusive growth and equality among their members [32]. Therefore an e-factory shop designed for a cooperative should be centered on the values and principles of a cooperative. The values of co-operatives are described on the following table and how they influence the design of a co-operative's e-factory shop:

Co-operative Principles	Applicability to an e-factory Shop
Self-Help	An online shopping platform provided by a co-operative will help any co-operative to provide a space for consumers to select their choices of products or services, in case of sewing co-operatives buyers will have the luxury to choose and even specify preferred designs thus helping one-self and the co-operative concerned.
Self-Responsibility	Co-operatives are not to be dependent on investors or any person for resources or bringing about solutions they are for the community and by the community to solve community challenges. E-factory shops will enable co-operatives to gain access to responsible and socially conscious buyers.
Democracy	This element or principle is to ensure that co-operatives' members and other stakeholders are heard within a co-operative. An e-factory shop will also provide a platform for sewing co-operatives to exhibit different designs as done by members or workers of the co-operatives and this will enable buyers or consumers to decide which one is the best and this will also be reflected by item sales.
Solidarity	This term suggests that co-operatives have similar characteristics and keeping together as a network is essential. Best online shopping platforms with better functional capabilities are costly and may require co-operatives to embark on an inter-co-operative cooperation in launching an online shop. This could also be done through a secondary co-operative serving other primary sewing co-operatives which would strengthen solidarity while it eases the burden or costs of running a fully-fledged online factory store.
Equity	An online factory shop will not only enable those who have the means to buy online to gain access to a sewing co-operatives apparel but will trigger another business opportunity of co-operatives which would focus on promoting access to online spaces and

	platforms. Also equity refers to ensuring that all have an equal opportunity to participate in a co-operative and by means of opening an online shop this will enable potential customers to finally gain access to supporting the co-operative movement.
Equality	Sewing co-operatives are largely run by women and elderly members of the community. This is also a common trend in states supporting and having popular co-operative movements. What online factory shops would do for co-operatives is attracting different members of the global community and local people to supporting and buying from responsible clothing manufacturers such as sewing co-operatives. In line with the Sustainable Development Goals is buying from co-operatives, but, how if the movement is localized only to certain communities? The online factory shops answer the question of reachability of the co-operative movement which has built a name for itself in terms of creating equality in society by involving the poor, the rich, young, old and disabled.

The success of online factory shops is also dependent on several other abilities of a co-operative. This includes the selling of unique products and which can also draw the co-operative closer to the global market (Fahy & Jobber, 2020:307). The following section is a conclusion of this research paper.

V. CONCLUSION

E-commerce has achieved growth in the retail sector in the early and late 2000s and was also adopted by the manufacturers of well-known brands such as Nike.com [23] and others, which were more interested in selling their products directly to the market and to other businesses. Integrating the supply chain members such as distributors and shipping companies will be of great importance for any small to medium-sized manufacturer planning to launch an e-factory shop [33]. Decisions on designing information systems to support the e-factory shop has will have a direct impact on the success of the e-factory shop and the systems engineers and online shop design specialists may explore and engage in this opportunity of working with cooperatives which are socially driven enterprises as opposed to being only profit driven [34]. In conclusion e-commerce is developing faster and improvements to its safety are also making it more attractive to different size businesses, in case of small to medium-size sewing cooperatives around the world an establishment of an e-factory shop would grant them access to a larger market of corporate buyers and individual consumers who believe in the cause of cooperatives [36] and this may increase their sales and improve their sewing operating processes as well as their business performance from both the market and financial perspective.

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The Strategic Process in Large Ecuadorian Enterprises: A Case Study

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ABSTRACT

This study focused on large companies in Ecuador, describing different aspects and responsibilities for the strategic process within the companies studied. The results show that the strategic process is not generalizable among these companies; however, there are certain similar characteristics that allow for a generic model. This research also contributes to the literature regarding strategy formation showing that, in the case of Ecuador, strategies are typically formed in upper management. That is in marked contrasts with the proposition that the process begins with middle managers, as other authors maintain. In the present investigation, the case method of study was used.

Background of the Problem

The implementation of strategy as a way to control market forces and shape a competitive environment began to emerge in the second half of the nineteenth century [1]. The invisible hand described by Adam Smith (1776) was gradually shifting to the visible hand of managers [3]. However, in the vast majority of cases, the research underlying these papers was conducted in developed countries; their reality and particular characteristics differ markedly from those of developing countries and emerging economies. However, in Latin America, published strategy research is scarce, so there is limited information about it.

Research Questions

The main research question is: How strategies are generated and implement at the Ecuadorian companies? It is important to determinate too: (a) how strategies are generated within companies; (b) there is a general rule or methodology within the companies; (c) people in charge of generate strategies; (d) who approves strategies; (e) how objectives and strategies are communicate to the rest of the organization; and (f) how strategies are implemented within companies.

Conceptual Framework

In most cases, strategic management can be defining as a formal process that comes from senior management and it is implemented by the middle management. Nevertheless, some author suggest that this process comes from middle management to be approved by senior managers [4]. Also, other authors suggest that the strategic process is a political process between different agents inside the company [5].

Assumptions

This research assumes that success in the Ecuadorian companies is the result of a correct formulation and implementation of strategies within the company. It is assumed that the strategic processes beginning with concrete strategy formulation follow by their implementation, the research seeks to understand how this successful action are done and the key actions for the success of these actions, at the same we seek to understand the type of process followed during the formulation and implementation of those strategies.

Limitations & Boundaries

For this research are planted the following limitations: (a) no statistical generalizations; (b) field research and data collection was done through in-depth interviews; (c) the way in which the strategic management in made on Ecuadorian Companies are defined by the informants; (d) is not possible to confirm one hundred percent the truth of the answers of the respondents.

The boundaries of this research are: (a) the study is conducted in Ecuadorian companies filed in this country, and the results are only valid for Ecuador; and (b) the study analyzed only companies with at least four years of existence. The study was conducted primarily in Quito and Guayaquil, as these cities account for over 80% of national trade [6] Additionally, the study does not consider state-owned enterprises due to changes in their strategies because of political changes.

Research Design

The purpose of the research is to describe how managers of the Ecuadorian companies applies the concepts of strategic management decisions. The research focuses on how strategic decisions are taken at Ecuadorian companies, and why the decisions are done in such manner. The study is qualitative on nature by applying a multiple case study research, a method that allows to reconstruct events and experiences in which the researcher cannot otherwise take part, and answer why and how it happened [7][8].

Data Collection and Results

The investigation was conducted applying the case study research method, comparing different cases in search of similarities and differences among them, hence each case it is an instrument of the global study [9]. After studying 21 companies the data was saturated showing that the strategic process is a formal process that come from the senior management and is execute by middle manager.

All the strategic process can be resumed in figure 1 and table 1.

FIGURE 1

Strategic process of large companies in Ecuador - Generic model

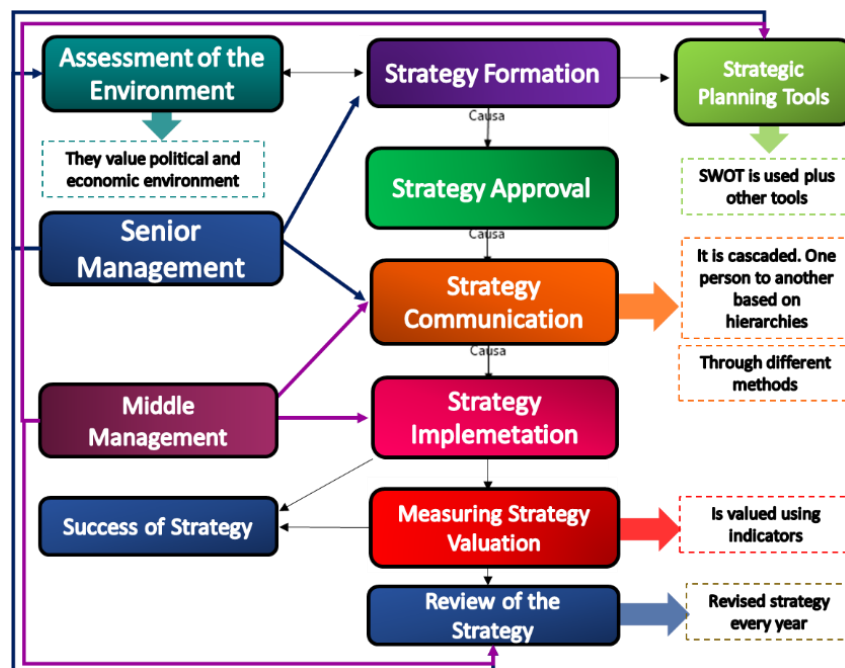


TABLE 1
Cross-Cases Summary

Categories	Codes	Cases	Frequency
Formation of strategies	High Management	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 14, 15, 16, 17, 18, 20, 21	18
Adoption of the strategy	High Management	All cases	21
Strategic Management Tools	SWOT plus other tools	7, 8, 9, 14, 15, 17, 18, 19, 20, 21	10
Assessment of the environment	Political and economic environment	1, 2, 3, 4, 6, 7, 8, 15, 18, 19, 21	11
Communication	Meetings and workshops. Others	6, 7, 8, 10, 20, 21, 2, 4, 14, 17, 18, 19	12
Implementation	Middle controls	1, 2, 3, 4, 9, 11, 13, 14, 15, 17, 19, 20, 21	13
Assessment	Indicators	2, 3, 4, 6, 7, 8, 9, 10, 11, 14, 16, 17, 19, 20, 21	17

CONCLUSION AND DISCUSSION

The results show that the strategic formation process is responsibility of senior management. In most cases, the process of generating and approval of the strategy occurs at the same time. Also, it is observed in most cases that the responsibility to generate and approve a strategy rests with the same person. The study reveals that Ecuadorian large companies would similarly value their environment and that they consider mainly the political and economic aspects. Result revealed that companies would use, as a tool for environmental valuation and strategy planning the SWOT, separately or jointly with quantitative tools.

The study found three atypical cases in terms of the generation of the strategy within the companies, which correspond to what was explained in the literature by Burgelman and Grove (2012), who considered strategy generation as a process in charge of middle managers.

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Cultural exchange made between Japan and Latin America led by characterized ancient cultural heritage as a Friendship Ambassador

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ABSTRACT

While Latin American countries are located geographically the furthest from Japan, Japan expects to reinforce the relationship with these countries as the supplier for abundant resources and foods.

Peccary, created in 2012 by characterization of ancient Ecuadorian clay figure collected by the grandfather of the director of Latin America Art Museum in Japan, received spotlight in Japan and Ecuador. Cultural and economic exchanges utilizing Japanese character culture has already started towards 100th anniversary of Ecuador and Japan's diplomatic relations in 2018, and the trend is also expanding in other countries such as Colombia, Dominica, El Salvador and Israel.

In this paper, activities of Peccary are focused and the cultural and economic meanings and results are discussed.

I Introduction

- Relationship between Japan and Latin America -

Bizen City, Okayama Pref. is a regional city known for the production of "Bizen ware" with a history of over 1000 years. When late Mr. Seiichi Morishita, a businessman from Bizen City, visited Latin America on business, he has been attracted by the charm of ancient American cultural relic and has started collecting local earthenware which has a rustic taste similar to that of his hometown. He has opened the BIZEN Latin America Art Museum in 1975 to show to the public his collection of ancient civilizations from 10 countries in Latin America including Inca Maya Azteca.

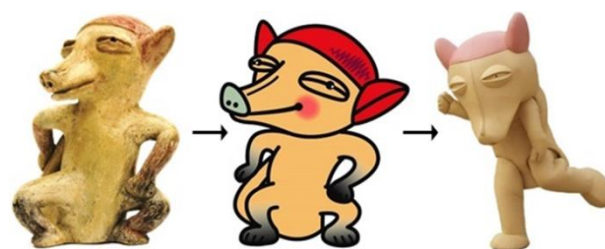
People's interest in ancient American culture in Japan has been triggered by the famous "El Cóndor Pasa" covered by Simon & Garfunkel in 1970 and unprecedented supernatural boom represented by UFO and ESP at the time of the museum opening. It also coincides with the period when TV animation and drama for children incorporating the idea of Inca civilization and El Dorado legend has been broadcasted in Japan. The supernatural boom has gradually calmed down while Japanese interests in Latin American culture has certainly continued.

II Birth of "Peccary", Latin America Art Museum PR mascot

BIZEN Latin America Art Museum has been suffering from attracting visitors due to inconvenient access to the museum and poor recognition while it is the only Latin

American archeological museum with many precious remains displayed in Japan.

In order to solve the problem, Mr. Yasuyuki Morishita, the grandson of Seiichi Morishita and graduate of National Autonomous University of Mexico has given birth on October 9, 2012 to "Peccary" being applied the model of Javelina Ancient clay figures made in Ecuador around Cholera culture (1200 BC ~ 200 BC) from its collection as a museum PR mascot (Figure#1).



"Peccary" has marked a debut by participating in local

**Figure#1 Ecuadorian Ancient clay figure,
"Peccary" illustration, costume
(From left to right)**

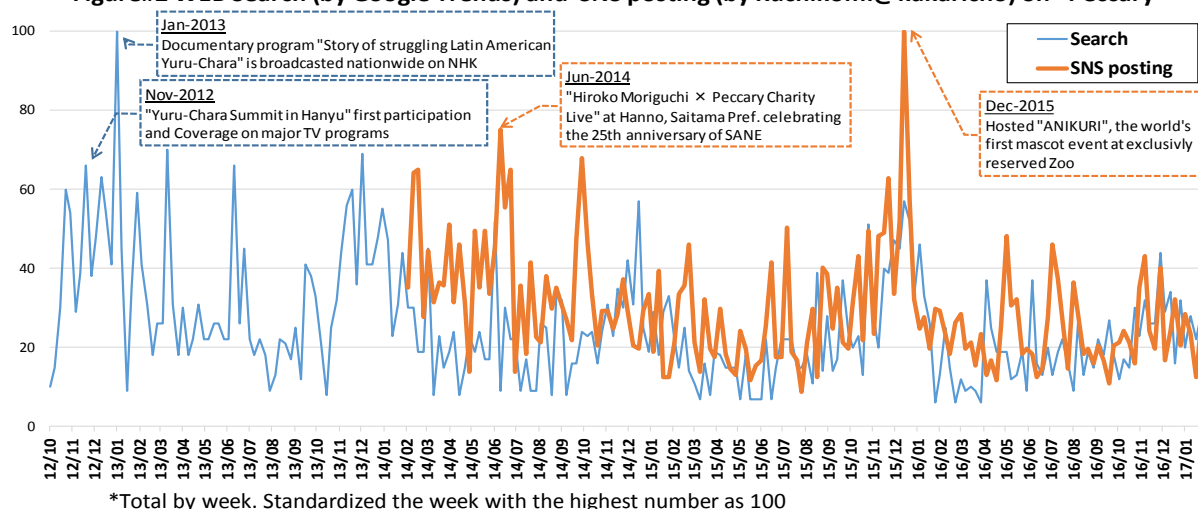
mascot event "Yuru-Chara summit in Hanyu 2012", the biggest such event in Japan and has attracted audiences' attention with its distinctive appearance unlike other characters. The plot of "Peccary" found in Ecuador and brought to Japan by "Captain José", disguised by its birth parent Morishita dressed in captain costume has soon become a topic on nationwide TV news and WEB.

Its unexpected abilities of beautiful singing referred to as "angelic singing voice" and trilingualism of Spanish, Japanese and English, has also contributed to its success and fans have shared its image through SNS and movie sites every time it appears at major events such as documentary program on national broadcasting TV, and serving as a host for local mascot event "ANIKURI" held exclusively at Okayama Pref. Zoo. From 2013 to 2015, the number of WEB searches and SNS posting of "Peccary" has increased (Figure#2).

The number of WEB searches and SNS posting of

In June 2014, "Peccary" has held a charity music concert

Figure#2 WEB Search (by Google Trends) and SNS posting (by Kuchikomi@kakaricho) on "Peccary"



"Peccary" has decreased along with slowing down of "Yuru-Chara" boom after 2016, and awareness of "Peccary" remains at a low level at 4% nationwide and 10% in local Okayama as of February 2017. However, the likability is particularly high at 66% among those who are aware of "Peccary", especially attracting strong support from adult group ranging from 35-49 years old male and female and the high social networking group (Figure#3).

Figure#3 Awareness and Likability of "Peccary"

	Awareness	Based on "Peccary" Awareness		n
		Likability	Core-Likability	
Men and women 3-74 year old	4.0	65.9	10.4	4500
[Demographics Profile]				
Men 20-34	9.7	61.4	11.4	452
Men 35-49	5.3	76.5	5.9	318
Women 20-34	4.3	73.7	15.8	446
Women 35-49	3.3	80.0	10.0	303
[Social technographics Profile]				
Creators	14.2	74.3	25.7	247
Critics	14.2	78.8	9.1	232
[Geographics Profile]				
Okayama Pref.	10.0	71.4	28.6	70
Hiroshima Pref.	2.7	33.3	0.0	111
Kagawa Pref.	9.4	100.0	0.0	32
Ehime Pref.	9.8	50.0	25.0	41

*ADK character power research 2016-2017 (Conducted on 4,500 men and women between 3-74 years old nationwide in February 2017)

III Acting as Bridge between Japan and Latin America

In the spring of 2013, Ecuadorian media has warmly welcomed home "Peccary" in national costume nestled in the Andean Plateau and has broadcasted it favorably when "Peccary," self-claimed "Yuru-Chara Ambassador of Ancient Ecuador" visited Ecuador. The documented records of the visit have been put together and published as a fan book in Japan. The book helps promote Ecuador.

with Japanese pop music singer, Hiroko Moriguchi and local mascots to commemorate the 25th anniversary of SANE, an NPO that supports children in needs in Ecuador. Ecuadorian Ambassador and Embassy staff has also attended such events and collaborated to convey local attraction and specialties of Ecuador. Towards the 100th anniversary of diplomatic relations between Japan and Ecuador in 2018, "Peccary" keeps itself busy by collaborating with local mascots to release CD album, holding charity concerts and promoting "Exhibition of ancient Ecuador time" in Japan.

IV Observation

Following five factors can be stated why Peccary's rapid increase of number of core Japanese fans, and welcoming by Ecuadorian.

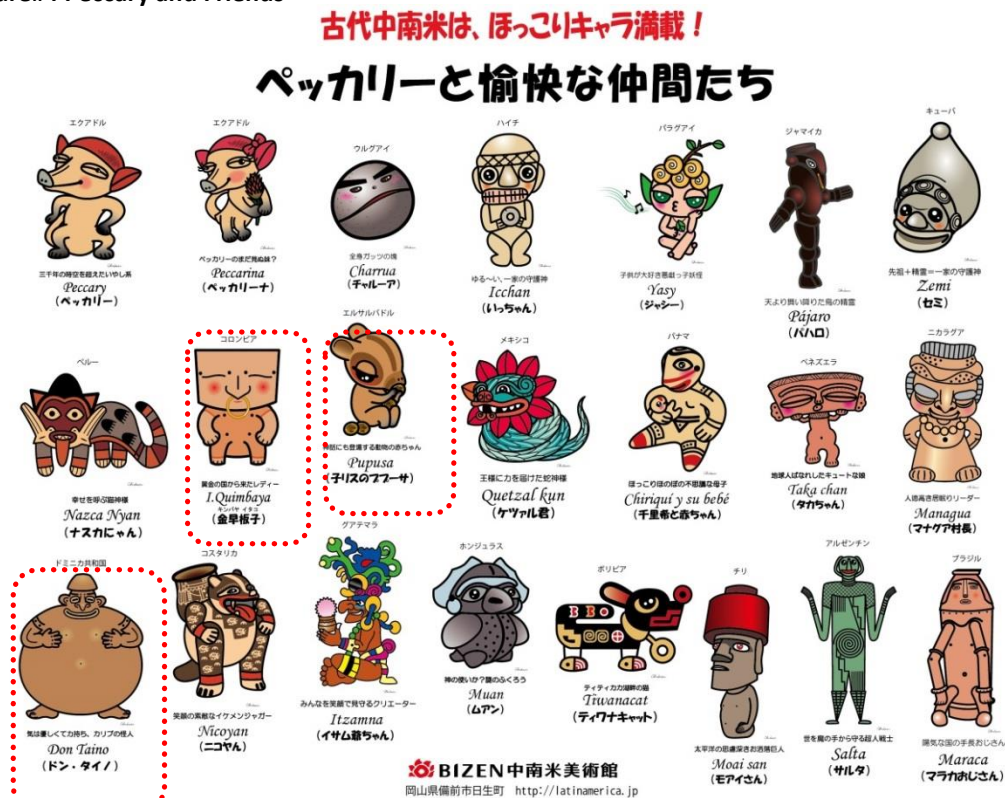
1. There is an atmosphere of accepting mascots in Latin America as people believe in "animism" that all things have spirits from ancient times, and cultural and spiritual fundamentals are similar to Japanese.
2. In Japan, admiration and interest for Latin American ancient civilization and nature continues since 1970s.
3. At the time of Peccary's birth in 2012, Japan has been at the height of feverish "Yuru-Chara" boom when TV programs, newspapers and WEB news covered new unique mascots every time one appeared.
4. "Peccary" has created "Clay Figure Club" and given Clay Figure Club name to Twitter followers, performed daily interactive exchanges, released newsletter and carried out interexchange with fans and dispatched information continuously.
5. "Peccary" has attracted overseas fans with its movies of singing Spanish and English songs, and has differentiated itself from other amateurish local mascots by professional singing performances on stages.

Director Morishita has already announced 22 mascots incorporating motifs of from his Latin American collections naming "Peccary and Friends" (Figure#4), among which three mascots of Columbia, Dominica, El Salvador and their costumes have been introduced in

2013. This movement has influenced the Israeli Embassy in Tokyo and lead to their producing official mascots in 2013. Furthermore, other embassies and government agencies in Japan follow suite and create original mascots to promote exchange between Japan and their own countries.

The case introduced here is the communication strategy between nations using mascots as the medium by naturally encouraging participation or collaboration that is the current trend in the world of marketing. It is important to keep in mind how far the current grass-roots level activity will expand.

Figure#4 Peccary and Friends



Business and Social Initiatives in Latin America: Context, Concepts, and Operational Guidelines

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ABSTRACT

This paper analyzes business and social initiatives in Latin America by delineating their conceptual foundations and reviewing the factors influencing their trajectory. In so doing, the paper examines the longstanding linkages between social concerns and business endeavors in the region and how they were influenced by political, social, and economic changes both within and outside Latin America. As the vast majority of new social business initiatives are most likely to be undertaken by management professionals or social activists new to this field, the paper proposes some key operational guidelines gleaned from recent research as well as years of practical experience in this emerging domain of business administration.

INTRODUCTION

The last quarter century witnessed a series of profound changes in the business environment in Latin America. In an impressive number of countries, policy initiatives in the form of privatization of public enterprises, liberalization of domestic markets, and the aggressive pursuit of free trade agreements together reduced direct government participation in the economy [1][2][3]. In the process, governments ceded a far more prominent role in the economic affairs of the nation to private enterprise both foreign and national. These policy shifts ushered in a period of foreign investment that facilitated the aggressive spread of telecommunications capabilities: the internet, cable television and the use of cell phones with progressively more sophisticated capacity. Favorable terms of trade for primary commodities in turn contributed to strong economic growth and rising real incomes.

As a by-product of these various developments, there emerged what some observers have come to characterize as a new relation between business and society in the region [4]. Said relation is said to reflect the expanding involvement of private enterprise in an array of social initiatives that go well beyond simply maximizing profits to include, among other things, helping attain environmental sustainability [5], fostering more inclusive business activities among low-income segments of society [6][7][8], promoting entrepreneurship among poor urban teenagers [9], offering improved educational opportunities [10] — and for some even suggesting a new management paradigm for business itself [11].

CONTINUUM OF BUSINESS MODELS

In wake of these developments, an expanding continuum of business models with a varying scope and intensity of social engagement have either spouted up from nothing or emerged from their past structures so as to become various degrees removed from their previous constitutions and operating procedures [12]. In the process, what might be referred to broadly as the “social initiatives of business” also has diversified in terms of primary objectives. Some studies refer to “social enterprise” [13] when setting out to learn from business experience in carrying out social initiatives in different countries or sectors across the region-- that in themselves differ markedly in terms of the social objectives and the nature of the involvement of business from others similarly characterized [10][14][15]. Other observers refer to “social business” when describing what at least to some have undertaken a rather different type of commercial endeavor that places far less priority on private profits and much more on social progress [5]. It should also be noted that these more recent (i.e., since 2000) manifestations of social initiatives on the part of business enterprises in Latin America or the pursuit of social benefits through business-based initiatives are by no means without their own regional antecedents in either the corporate [16][17] or socio-economic development domain [18] [19], nor are they by any means entirely the result of initiatives of strictly regional origin [20][21].

KEY QUESTIONS FOR MANAGERS

From a more managerial perspective, and despite the differences previously alluded to, over the two decades a growing body of literature on social undertakings of business raises the following questions. While all social initiatives engaged in by businesses succeed or fail in a particular context— commercial, social, legal, or cultural, are there a series of management guidelines that bear taking note of going forward grounded in the experience in Latin America? In particular, are there some basic operational guidelines for business practitioners engaged in social initiatives that emphasize the initial phase of such undertakings, but also of more long-term applicability that merit mention taking note of in themselves given their managerial implications? Such guidelines might also serve as something of a benchmark in the journey towards a better appreciation of how to improve the execution

and impact of such initiatives. These guidelines take on added importance given that all indications are that aspiring practitioners will face increasing demands to show greater benefits for society and the firm as both the competitive forces associated with globalization continue to spread and intensify and society's expectations in such areas as protecting the environment, eradicating poverty, ensuring access to education, and guaranteeing human rights become more pronounced in the years ahead.

The remainder of this paper is divided into three parts. Part two initially presents a brief review of the range of recent social business initiatives and how they have been implemented in the region in the case of various specific business endeavors. It subsequently traces the origins of social business initiatives in Latin America so as to put more recent developments in proper context. Part three then enumerates a set of basic lessons for managing social business undertakings aimed primarily at aspiring practitioners -- as opposed to, but not excluding, academics, researchers or public policymakers -- before transitioning to some concluding remarks.

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Influence of perceived risk and brand equity on purchase intention in the category Colombian soluble coffee

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ABSTRACT

Different authors have defined purchase intention when a person makes a statement as to whether to buy, or not a product. It has been considered an important indicator in marketing management to project sales of new and existing products [9][20]. The research expects to expand the knowledge in purchase intention through brand equity and perceived risk testing a new the model. The category selected for the research is one of the most important in Colombia. It expects a growth of 36% by 2018 reaching USD260,000 million in sales [18]. If this category is compared with other categories of consumption in Colombia, only a few of them expect a growth as such as soluble coffee [36].

BACKGROUND OF THE PROBLEM

To date, there have been numerous studies that measure the purchase intention, perceived risk, and brand equity, but It has not found studies measuring purchase intention through the brand equity and perceived risk with all set of variables proposed by the authors: David Aaker (1992) for brand equity and Roselius (1971) and Jacoby and Kaplan (1972) for perceived risk. These theories have been so consistent that they have been used through the years up to 2016, in different researches on different products like: commercial electronic, technology, house hold, food, and personal care among others

STATEMENT OF THE PROBLEM

There are several variables that can affect the purchase intention [26][7][27][1][9], and suggest including more variables to have a better indicator of purchase intention. The research evaluate if these constructs when analyzed together in the context of consumption, may increase or decrease the purchase intention [32][15]. Furthermore, when measuring purchase intention, using brand equity and perceived risk, papers suggest that not all variables are used

From this point, it is important to consider more variables, as this research proposed, in order to understand if they can influence a customer's purchase intention and to what extent. Therefore, If the indicator of purchase intention increases, it could be more exact with the predicted sales

PURPOSE OF THE STUDY

This is a quantitative research. The purpose is to identify how using all the set of variables of brand equity and perceived risk, can influence purchase intention, of soluble coffee in Colombian consumers and to what extent. The research considers brand equity and perceived risk as independent variables and

attitude as mediating variable. Purchase intention is an independent variable.

LITERATURE REVIEW

Brand Equity

Farquhar (1989) recognized Brand Equity for how it brings added value to a product or service. In seeking to narrow the gap between intention and behavior, several authors refer to brand equity as a resource that an organization possesses that generates preference and advantage over other brands in the market [36]. Different models have suggested measuring brand equity considering a number of dimensions that address different areas of equity creation [1][24][25].

Aaker (1992), Aaker and Álvarez del Blanco (1994), and Aaker and Joachimsthaler (2005) proposed measuring brand equity through a multidimensional model of four components (a) brand loyalty, (b) perceived quality, (c) brand associations and image, and (d) awareness. One more component is considered in Aaker model [1], it refers to other proprietary brand assets. However, this component is normally omitted in brand equity research since it is not directly related to the consumer [2][29][14]

Perceived risk

Perceived risk is defined as the strategy generally assumed by consumers to minimize or reduce any negative utility associated with purchasing behavior [28]. However, the combination that individuals make of the variables that influence their final decision, is one of the biggest problems in the purchasing decision analysis

Perceived risk has been considered in the literature as a multidimensional variable that consists six types of risks: (a) financial risk, (b) functional risk, (c) physical risk, (d) social risk, (e) psychological risk, and (f) global risk [31][21][23].

Consumer attitude

The concept of attitudes has a central position in the study of consumer behavior According to Ajzen and Fishbein (1977) attitude has emerged as one of the most comprehensive theories for the measurement of attitudes as determinants of intention. Attitude is the result of three components that are comprised in a comprehensive and inclusive manner (a) the cognitive component, (b) the affective component, and (c) the behavioral component [5][6][13][38][39].

Purchase intention

Purchase intention has been defined as how susceptible a person can be to different stimuli such as branding, advertising, previous experience, and he carrying out of a purchasing behavior. This has focused the attention of many psychologists and economists to understand what variables influence the creation of favorable attitudes toward brands, and from this, what influence they have on intentions to purchase [26][22][7][27][9]. Although the focus of this research is not to measure purchasing behavior in new products, the statement of the purchase intention of a product appears to be sufficient when seeking to predict such behavior which requires consideration of new variables [35].

THEORETICAL FRAMEWORK

The research proposal expects to determine if using all the set of variables of brand equity and perceived risk at the same time can influence and improving the purchase intention indicator, with consumer attitude as a mediating variable. The theory supports the possible influence of the attitude on purchase intention, considering the latter as the result of the brand equity and the perceived risk on the consumer.

In addition, and according with Bagozzi there are two additional groups of attitudes, evaluative attitudes and emotional attitudes whose have to be included in this research. These support the theory about the influence on purchase intention using the attitude as the variable that can influence or affect the results over consumer [10][11][12][17].

The model used Structural Equation Model, because it allows the simultaneous analysis of the latent variables, which can only be measured by observed variables through calculation of the various tests and statistical indices. See the research proposal model in Figure 1

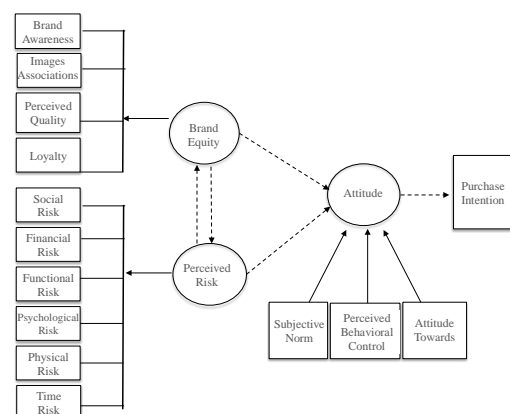


Figure 1: Research proposal model

The model suggests purchase intention as dependent variable, brand equity and perceived risk as independent variables and consumer attitude. As mediating variable. The model also considers latent variable: The model considers brand equity, perceived risk and consumer attitude as latent variables. Observed variable: The model considers four variables of brand equity, six variables of perceived risk and three variables of consumer attitude as observed variables.

Hypothesis

The research considering the following hypotheses:

H1: Perceived risk influence purchase intention directly and through the mediating variable of attitude;

H2: Perceived risk has an influence on brand equity of the soluble coffee brand;

H3: Brand equity has an influence on perceived risk of the soluble coffee brand;

H4: Brand equity of the soluble coffee brand has an influence on consumer attitude and thus on purchase intention; and

H5: Brand equity and perceived risk have an influence on consumer attitude and thus on purchase intention of the soluble coffee brand;

RESEARCH DESIGN

This research has been approached from a positivist paradigm, with a deductive approach that applies statistical techniques to get to know to what extent the purchase intention can be affected if the perceived risk, brand equity and attitude are taken as a whole.

This research is of the correlational type that aims, through an analysis of cause-effect, to determine the degree of influence of different independent variables on the dependent variable. This confirmatory study, seeks to know the extent that variables are related [19]. The correlation test is considered to test hypotheses of causal relationships and tries to identify the influence of the brand equity and perceived risk on purchase intention through attitude as the moderating variable [16][34].

Sampling frame

The city selected for this research is Bogotá. It had the largest share of soluble coffee sales at the end of 2016. The population will be limited to heavy users within soluble coffee category, men and women between 20 and 55 years old, equivalent to 6'509,481 people. The socioeconomic level from two to six, representing 92% of the population.

Sampling procedure

The research will be of a probabilistic type, and it will use a proportional stratified sample. The cartography or official list of neighborhoods and localities of Bogotá's urban areas will be used in the research. The sampling technique divides the sample in different groups, (a) locality (areas), (b) neighborhood, (c) household, (d) people and unit of research, considering this as a multi-stage sampling.

Instrument

The variables of brand equity construct will be measured on a 7 point scale (Likert scale), where one means strongly disagree and seven means strongly agree [14]. Brand equity will be measure with 21 items. The variables of perceived risk construct will be measured on a 7 point scale (Likert scale), where one means strongly disagree and seven means strongly agree [33]. Perceived risk will be measure with 18 items. The variables of attitude construct will be measured on a 7 point scale (Likert scale), where one means strongly disagree and seven means strongly agree [3] [4][11][12][13]. Attitude will be measured with 25 items.

Internal consistency was measured through Cronbach's alpha coefficient

Pilot test

A pilot survey was carried out two times to ensure that every item for each construct is relevant in the Colombian context. The sample size was 50 consumers of soluble coffee, equivalent to 5.5% of the total sample. An official Colombian translator translated every item from English to Spanish. The Cronbach's alpha coefficient was higher than 0,8 for all group of variables.

Construct	Alfa Cronbach	Number of elements
Brand equity	0.947	21
Perceived risk	0.897	18
First group of attitude	0.848	14
Second group of attitudes	0.919	11

Table 1: Validity of the constructs in Colombia

context

CONCLUSION

Purchase intention is measured through different variables related to some dimensions of perceived risk and brand equity; however, during the review of the literature, studies were not found that focused on knowing the influence of the six dimensions of perceived risk, together with the five dimensions of brand equity on purchase intention while using attitude as a mediating variable of this relation.

The measurement has considered experimental and non-experimental methods, using surveys in different categories for each relation; therefore, a quantitative non-experimental study applying face-to-face surveys is feasible. However, diverse studies have demonstrated that the relation between the variables of perceived risk and brand equity concerning purchase intention is not always the same and could change considering the amount of variables used for measuring the intention.

There is no known research in Colombia for the soluble coffee category. There are theoretical fundament that lead to the inclusion of all variables in order to measure perceived risk and brand equity considering attitude as a mediating variable of this relation, allowing for understanding about which variables have influence, in a greater or lesser extent, on purchase intention and therefore amplifying the comprehension of this relationship

TABLE & FIGURE

Table # 1: Validity of the constructs in Colombia

Figure # 1: Research proposal model

REFERENCES UPON REQUEST

Signing the Annual Report of the Swiss Corporations

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ABSTRACT

Pursuant to Article 958 para. 3 sentence 2 of the Swiss Code of Obligations (CO), the annual report shall be signed by the chairperson of the supreme management or administrative body (e.g. the chairman of the board of directors of the corporation), and the person responsible for financial reporting within the undertaking [1]. The provision was introduced into the Swiss Code of Obligations by the reform of the accounting law with effect to 1 January 1, 2013. It shall be applied to annual reports from 2015 financial year onwards [2].

The responsible person confirms by signature that she is aware of the business transactions, their accounting recognition and presentation is correct and definite. The person documents her individual responsibility for the completeness and correctness of the financial statements by signature. The balance sheet and income statement are attributed to the knowledge of the signatory. Subsequently, the signatory cannot rely on ignorance or incorrectness, unless he has been unable to detect any defect even with due caution. The confirmed correctness of the information contained in the annual report constitutes a possible liability and punishment basis in the event of a false statement [3].

The obligation to sign is not a validity requirement, but a regulatory provision. If the signature is missing, there is a violation of the regulatory. Nevertheless, the signed annual report and its components are effective. The signing does not restrict the responsibility. All members of the Board of Directors, and not only the signing Chairman, are responsible for the annual report (Art. 716a para. 1 no. 6 CO) [4].

Although the Board of Directors is responsible for both, to compile the annual report (Art. 716a para. 1, no. 6 CO), and to organize the accounting and financial control (Art. 716a para 1 no. 3 CO), as non-transferable and inalienable duties, the question can be asked whether the person responsible for the financial reporting can also be responsible, if she has confirmed the correctness of the financial statement with her signature. Before this, however, the question must be asked when is a person responsible for the financial reporting. The provision leaves this question open. A non-competent person cannot be held responsible for things for which she is not responsible. Based on the example of the Swiss corporation this question is discussed in the following.

DEFINITION OF RESPONSIBILITY

The term responsibility is neither defined in the provision nor elsewhere in the Swiss Code of Obligations. The explanatory memorandum [5] and literature are also silent on the responsibility requirement. They do not provide information as to when a person is responsible for the accounting and when she is not. A few examples are given to function holders, such as the CFO or accountant, without questioning their

responsibility requirement. Rather, their responsibility, which might be usually the case, is assumed [6].

In general, to be responsible means that a person is empowered or authorized (authority) to decide decisively about facts or things (power to decide) and is liable for it (liability). These necessary requirements have to be cumulatively fulfilled in order to be responsible. If, in particular, one of the first two requirements is not met, the person cannot be held liable. As a sufficient requirement, a person should be competent (competency) in order to be able to fulfill the first three requirements - in particular those of the power of decision. Without sufficient knowledge of the subject, a person is not in a position to assess facts properly and to decide on the right quality [7].

From the general definition of responsibility, it can be derived for financial reporting that the person responsible for financial reporting shall have the authority and power of decision to make decisively financial reporting related decisions. This is the case if her decision is not dependent on any authorization of any other person or body or cannot be lifted by the veto of another person or body. In addition, she shall have the necessary expertise to make competent decisions.

POSITION AND RESPONSIBILITY OF THE BOARD OF DIRECTORS

Annual report and financial responsibility

Partial tasks of the overall management [8] of the board of directors are to compile the annual report (Art. 716a para. 1 no. 6 CO), and to organize the accounting, financial control and financial planning systems (financial responsibility; Art. 716a para. 1 no. 3 CO). Organizing the accounting is aimed at the proper financial reporting (financial and operating accounting, planning and special accounting) and to determine applicable accounting standards (usually Swiss Code of Obligations, Swiss GAAP FER, IFRS or US GAAP). Financial control must be appropriately designed and operational (frequency and intensity of financial reporting). The tasks do not need to be carried out or monitored by the Board of Directors. Rather, it has to ensure that the tasks are performed, financial and operating accounting function and their results are meaningful. The responsibility of the Board of Directors relates to the organization and suitability, not to the details or the implementation [9].

Delegation

If the Board of Directors is authorized by the Articles of Incorporation to delegate the executive management in accordance with organization regulations (By-Laws; Art. 716b no. 1 CO), it may delegate tasks to prepare the annual report and to exercise financial

responsibility. It is sufficient to carry out its overall management, if the Board of Directors gives the necessary instructions and adequately supervise the execution [10].

In practice, the Board of Directors delegates financial responsibility to the Executive Board and uses its preparatory and executive assistance. The annual report, consisting of the management report and the financial statements (Art. 958 para. 2 CO), is not drawn up by the Board of Directors itself, but drafted and edited by the Executive Board with the help of auxiliary staff [15]. The management report is often prepared by the Chairman of the Board of Directors in collaboration with members of the Executive Board or a delegate. The Chief Financial Officer and his team or a delegate prepare the financial statements. The responsibility remains, however, with the Board of Directors [11]. For this purpose, the Board of Directors shall check whether the financial reporting is correct (Art. 958 para. 1, Art. 958c CO) [12].

If the finance function is assigned to one member of the Executive Board, which should be the case on a regular basis, this person is responsible for financial reporting and shall sign the annual report together with the Chairman of the Board of Directors (Art. 958 para 3 CO).

If the Board of Directors has delegated the performance of a task (eg. financial responsibility or annual report) to another body, such as the Executive Board, it shall be liable for the damage caused by the latter, provided that it does not prove that it has exercised due diligence in selecting, instructing and supervising as required by the circumstances (Art. 754 para. 2 CO). As a result of the delegation of tasks to persons who are subordinated to the Board of Directors, these persons shall become a body of the company [13]. The liability of the Board of Directors is limited to due diligence in selecting, instructing and supervising. However, this shall apply only insofar as no non-transferable task of the Board of Directors pursuant to Art. 716a CO exists.

Auxiliary tasks, which do not require a formal organization through a corporate body, ie. preparatory and executing tasks, may be delegated without a formal basis. In this case as well, the liability of the Board of Directors is limited to due diligence in selecting, instructing and supervising the persons entrusted [14].

In summary, the Board of Directors is initially responsible for financial reporting by virtue of law. He can transfer responsibility by delegating tasks. The Board's liability with regard to organizing the accounting system remains unchanged, since organizing the accounting system is one of the non-transferable tasks of the Board of Directors (Art. 716a para. 1 no. 3 CO). Beside the liability for selecting, instructing and supervising, there is a further individual liability of the Board members.

DOCUMENTING RESPONSIBILITY

DIRECTIVES OF THE BOARD OF DIRECTORS

Beside to the legal requirements and the possibilities to delegate, responsibilities may also arise from directives issued by the Board of Directors within the meaning of Art. 716a para. 1 no. 1 CO. This includes both, regulatory arrangements in a generally abstract

manner (eg. organizational regulations (By-Laws), business regulations, duties for specific activities and employees) as well as in an individual-concrete manner (eg, logged board resolution). In addition to such written instructions, oral instructions are also imaginable [15].

By-laws or resolution of the board of directors

If the Board of Directors has delegated executive management competences, the assignment of competencies between the Board of Directors and the Executive Board shall be defined in the By-Laws. The By-Laws organize the executive management, determine the required positions, describe the tasks and particularly regulate the reporting (Art. 716b CO). The purpose of the By-Laws is to implement and supplement requirements from laws, regulations and statutes in the company. It also defines functions, responsibilities and powers of the corporate bodies and their members. Consequently, the responsibilities to manage business and financial affairs, including financial reporting, shall be clearly defined in the By-Laws.

The By-Laws can be supplemented and concretized by means of specification sheets, organizational charts, functional diagrams, job descriptions, etc. They may be an integral part of the By-Laws, but they may also be enacted separately [16].

Whoever is responsible for the financial reporting within the company is typically determined by the By-Laws [17] or can be derived from them. For the sake of clarity, it appears to be advantageous to define the responsibility in the By-Laws [18].

But what is the atypical case, if there are no By-Laws or they are in fact not applied, outdated or not lived? In such cases, it must be possible to prove the delegated functions, responsibilities and powers by means of other evidence, such as governance rules, function and job descriptions, meeting minutes, internal communications, business correspondence or witness statements [19].

Governance rules

Often, large corporations have governance rules in place in addition to By-Laws. They are usually prepared by the Executive Board or business divisions, and put into effect by approval of the Executive Board. They serve to organize the business activities of the respective business division below the Executive Board. They regulate the responsibilities and powers which are not regulated by the articles of incorporation or By-Laws [20].

Function and job descriptions

In addition to the By-Laws and/or governance rules, it is possible to use function or job descriptions alternatively to answer the responsibility question. However, there may be cases where function or job descriptions are only a paper tiger or outdated, which are not adhered and not lived. Legal appearance and legal reality differ in these cases, too. In my opinion, actual design and actual practice of the functions has to be taken into account in order to derive responsibility.

In summary, it can be stated that, if the responsibility for financial reporting has been formally determined, but if it is not lived, the formally responsible person is a marionette, because it does not actually have the power to decide. The document which governs responsibility is

waste. A person without any powers cannot be responsible.

SIGNING BY A NON-AUTHORIZED PERSON

There may be cases where a person is responsible for financial reporting but is not legally authorized to represent the company, such as a legally non-authorized head of accounting. The signature of this person is necessary, because she is responsible for financial reporting. The responsible person confirms with their signature the correct accounting recognition and presentation of the business transactions. If the Chairman of the Board of Directors or the owner is not a practitioner, he is regularly unable to confirm the accounting correctness of the business transactions. He can only confirm that, according to his knowledge, all facts are presented; but not, whether they are presented correctly. There would be a gap without the signature of the responsible person [21].

REPRESENTATION AND OUTSOURCING

The possibility that a deputy signs the annual report is controversial. It can be inferred from the meaning and purpose of the provision, that a representation can only be admissible, if the represented person knows the content of the annual report to be signed. This follows from the real purpose of the signing, namely, the statement of material knowledge and the statement of intent, as well as the effect attached to it. It is not sufficient, if the annual report is only signed by persons authorized to sign [22]. For reasons of clarity, in my opinion, it is also advantageous to define the deputy responsibility in the By-Laws.

An external engaged person (eg. a consultant) may not sign the annual report, since the text of the provision speaks of the person responsible for the financial reporting within the company [23].

SPECIALTIES OF VERY SMALL COMPANIES

If, for example, the Chairman of the Board of Directors and the person responsible for the financial reporting is the same person, only one signature is required [24]. If the Chairman of the Board of Directors is at the same time the only member of the Executive Board and the preparatory and executing activities are carried out at a downstream stage, the responsible person shall be determined on basis of appropriate documents and the actual design of the competencies [25].

SPECIALTIES OF COMPANIES WITHOUT PERSONNEL

In the case of non-staffed companies, the Chairman of the Board of Directors has to sign the annual report, as no delegation of tasks can take place in the absence of staff. This applies, for example, to holding companies (financial holding company as parent company) or intermediate holding companies, which serve exclusively for financial purposes. In the case of lack of personnel, preparatory, supporting and executing activities, such as accounting, are transferred or ordered to another company within the group or to an external

consulting firm. As mentioned earlier, the external assigned person may not sign the annual report.

CONCLUSION

A person who signs the annual report confirms by their signature the completeness and accuracy of the annual report as well as their knowledge of the presented business transactions.

Law and legal materials do not provide any information as to when a person is responsible for financial reporting. The responsibility term is not defined. A person is responsible for financial reporting, if she is empowered to make final decisions about business transactions, is liable for them, and has the necessary expertise.

In the case of delegation, responsibility for financial reporting can be derived from resolutions and directives of the Board of Directors, the By-Laws, governance rules, function and job descriptions as well as other documents. If the documentation does not correspond to reality, the responsibility question has to be answered on the basis of the actual circumstances.

(References upon request)

Do More Corporate Social Investments Lower Financing Costs?

Evidence of Non-Linearity Effect on U.S. Bank Loans

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ABSTRACT

We explore a research issue of whether corporate social responsibility (CSR) activities have a monotonic relationship with the cost of bank debt. Employing extensive data of private syndicated loans issued by U.S. firms, we find that the benefit of CSR strengths is not monotonic but declines at a decreasing rate, relative to the loan spread of private bank loans. Our findings indicate that there is an optimal level of CSR engagement with respect to the cost of debt. Undocumented for U.S. firms in the CSR literature, our results offer new evidence on the non-linearity effect of CSR on debt financing costs and suggest that a borrower's CSR investments beyond an optimal level are viewed as ineffective and wasteful.

1. INTRODUCTION

A large number of business firms nowadays practice corporate social responsibility (CSR), encompassing a wide variety of forms such as philanthropy, environmental efforts, and ethical labor practices, and some firms make CSR the core of their business operations to create shared value for business and society. While many existing studies examine various aspects of CSR, these studies have primarily focused on the effects of CSR on firm performance.

In spite of extensive research in CSR, related issues of whether more corporate social investments will lead to better firm performance and, if not, how much a firm should invest in CSR have not been directly examined in the CSR literature.

In this paper, we highlight firms' CSR policies and their impact on the cost of debt financing by addressing a research issue of whether there is a monotonic relation between CSR and the cost of debt financing, a key determinant of firms' financial performance. Specifically, we examine whether a firm's loan spread declines monotonically as the firm engages in more CSR activities, as documented in the studies of U.S. bank loans (see, e.g., Chava, 2014; Oikonomou et al., 2011). Debt financing plays an important role in firms' external financing and growth.

Hence, a firm's access to low-cost debt capital is critical to its financial success. Our results will shed empirical lights on the issue of whether there is an optimal level of CSR that minimizes the cost of debt financing and thus maximizes firm value.

Our study is motivated by prior research that suggests the existence of an optimal level of CSR but offers no empirical evidence on U.S. firms. Considering

supply and demand aspects of CSR, McWilliams and Siegel (2001) conclude that there is an optimal level of CSR investment that maximizes profit, while also satisfying stakeholder (consumers, investors, employees, and the community) demand for CSR and that this level of investment can be determined through cost-benefit analysis of CSR investment. Godfrey (2005) also suggests the existence of an optimal level of CSR from the risk mitigation perspective. Specifically, a firm's CSR investments should not exceed the optimal level required to fully insure the firm's risky assets against loss, and CSR investments beyond this level would impose additional costs without producing any insurance benefits. Similarly, Bartkus et al. (2002) suggest that managers may overinvest in philanthropy for managerial self-interests at the expense of shareholders beyond an optimal level, which would hurt firm value. The only empirical evidence on this issue in the CSR literature is, however, documented for Chinese firms. Using firm-level data from Chinese listed firms, Ye and Zhang (2011) provide evidence in supportive of a U-shaped relationship between CSR and debt financing costs. Their results show that CSR is negatively (positively) related to debt cost when firms' CSR investment is lower (higher) than an optimal level; hence, firms with extremely high or low CSR are subject to a higher cost of debt, compared to firms with moderate CSR.

In this paper, we demonstrate the non-linear effect of CSR investments on the bank loan spreads for U.S. firms by arguing that a certain (optimal) level of a firm's CSR engagement would be perceived by lenders as a favorable and risk-reducing factor, thus lowering the loan spread. Beyond that level, however, lenders would view the firm's CSR overinvestment as a waste of free cash flows, which in turn mitigates the benefit of CSR engagement. We design our empirical models to test this issue.

Our study focuses on private debt contracting in the U.S. market in evaluating the effect of CSR on the cost of debt financing. Private lenders such as banks are considered as information specialists because of their ability to extract private information via lending process and efficient ex post monitoring role in mitigating information asymmetries (Diamond, 1991). Hence, compared to public debt holders, private lenders are in a better position to judge whether CSR activities bring any genuine value to the borrower.

2. DEVELOPMENT OF HYPOTHESIS

Existing literature has advanced mainly two hypotheses—risk mitigation hypothesis and overinvestment hypothesis—on the associations between CSR and costs of equity and debt capitals (Goss and Roberts, 2011; Harjoto and Jo, 2011; Menz, 2010). Several studies show evidence supporting the risk mitigation hypothesis that socially responsible companies are generally considered to have low idiosyncratic risk (Boutin-Dufresne and Savaria, 2004; Soppe, 2004). One of the potential sources of lower risk associated with corporate social performance (CSP, hereafter) is through less risky future cash flows, whereby better CSP can lower the likelihood of costly law suits and/or increased regulatory intervention and compliance costs associated with social and environmental issues. Accordingly, lenders have an incentive to incorporate a borrower's corporate social performance in their assessment of the firm's risk and loan pricing; hence, banks may price these positive activities into a lower loan spread.

On the contrary, a firm's CSR engagement may be viewed from the perspective of a principal-agent relation between managers and shareholders. Barnea and Rubin (2010) argue that a firm's top managers have an interest in over-investing in CSR if it provides private benefits of personal reputation building as good citizens such as an environmentally-conscious CEO, possibly at the expense of shareholders. For example, as personal reputation increases due to publicized CSR engagements by CEO, he or she may improve future marketability in CEO labor market. Overconfident CEO tends to pursue overinvestments in general that are not aligned with the best interests of shareholders, as documented in the behavioral finance literature. Bartkus et al. (2002) also suggest that managers may overinvest in philanthropy for managerial self-interests at the expense of shareholders beyond an optimal level, which would hurt firm value. Accordingly, the overinvestment hypothesis posits that a firm's CSR engagement is an overinvestment for a manifestation of manager's diversion of corporate resources and thus makes the firm more vulnerable to credit screening by lenders, causing a higher credit spread charged on the firm's loans.

While the risk mitigation hypothesis and the overinvestment hypothesis predict a linear relationship of CSR engagement with a loan spread in the opposite direction, the true relationship between CSR engagement and loan pricing may not be linear. When the risk mitigation hypothesis is combined with the overinvestment hypothesis, the joint hypothesis may suggest a non-linear relationship of CSR engagement with a loan spread. As posited by the risk mitigation hypothesis, a firm's CSR engagement would make the firm less vulnerable to negative events (Godfrey, 2005; Pelozo, 2006; Zhang et al., 2010) and thus lower the firm risk, leading to a lower loan spread. This negative relationship would, however, hold true up to an optimal level of CSR engagement. Beyond the optimal threshold of CSR investment, the overinvestment hypothesis dictates in a way that creditors would view the borrowing firm's CSR overinvestment as a waste of free cash flows due to the firm's agency problems, thus compromising the benefit of CSR engagement and increasing the loan spread. Hence, as a borrowing firm marginally increases CSR engagement, the benefit increases at a decreasing rate. Accordingly, the benefit of CSR engagement may

be U-shaped, rather than monotonic, relative to the loan spread.

Our hypothesized relationship of CSR with the cost of bank loan is consistent with the implications of prior CSR research. McWilliams and Siegel (2001) hypothesize an ideal level of CSR investment that optimizes cost of providing CSR, while still satisfying demand for CSR from various stakeholders by considering supply and demand aspects of CSR investment. Godfrey (2005) also suggests that there exists an optimal level of CSR from the risk mitigation perspective. He argues that because a firm's CSR investment should be just enough to fully insure the firm's risky assets against potential loss, CSR investments beyond this optimal level would impose additional costs without any insurance value. Our hypothesis is also supported by the empirical evidence in Ye and Zhang (2011) which finds a U-shaped relationship between CSR and debt financing costs for Chinese firms. Their results indicate firms with extremely high or low CSR are associated with higher costs of debt, while firms with moderate CSR command lower costs of debt.

Based on the joint hypotheses of the risk mitigation hypothesis and the overinvestment hypothesis, we state our main hypothesis as follows:

Hypothesis: A firm's CSR engagement is non-linearly related to its loan spread, first decreasing the loan spread up to an optimal level of CSR engagement and then increasing the loan spread beyond it.

3. DATA

Sample bank loans are collected from Thomson Reuters LPC DealScan database over the period of 1991-2008. The DealScan database cumulates loan data, mostly syndicated loan data, from various sources including government filings. We screen DealScan for loan facilities originated in U.S and match loan samples with firm-level financial, stock return, and analyst information from Compustat, CRSP, and the Institutional Brokers Estimates System (IBES), respectively. Our selection procedure leads to a final sample of 5,810 bank loans.

Each borrowing firm's CSR ratings are obtained from KLD's Socrates database. The KLD database is the most comprehensive and widely used data on CSR research and includes social ratings for more than 3,000 companies listed on the Russell 2000, S&P 500 and Domini 400 Social indexes over consecutive periods. The KLD ratings are on thirteen dimensions of CSR; the first seven dimensions of community, corporate governance, diversity, employee relations, environment, human rights, and product quality & safety offer bases for strength and concerns ratings, while the second six dimensions of product, alcohol, gambling, firearms, military, tobacco and nuclear power are purely exclusionary screens, for which firms can only register concerns.

4. MAIN RESULTS AND CONCLUSION

Employing a large sample of more than 5,000 bank loans over the period of 1991-2008, our results show that both CSR strengths and CSR concerns of borrowing firms are significantly but oppositely related to their loan spreads; hence, a borrower's CSR strengths (concerns) work to lower (increase) the loan spread.

More importantly, as a borrower marginally increases CSR engagement, the loan spread declines at a

decreasing rate, suggesting a non-linear effect of CSR engagement on the cost of debt financing. Undocumented for U.S. firms in the existing CSR literature, this finding indicates that the benefit of CSR strength is not monotonic but U-shaped, relative to the loan spread. We interpret these findings as supporting the notion that creditors view the borrowing firm's CSR investment beyond an optimal level as a waste of free cash flows due to the firm's agency problems.

Our results also show that the non-monotonic relation between CSR and loan spread is more pronounced for borrowing firms with moderate levels of CSR concerns than no or extreme levels of CSR concerns and for borrowers with better than average credit ratings than for borrowers with low or no credit ratings.

Lastly, we investigate the possibility that the firm size effect drives our regression estimates. Employing two different measures correcting for the firm size effect shows results qualitatively identical to our main findings. Our results provide strong empirical support to the theoretical reasoning regarding the optimal level of CSR investments proposed in Bartkus et al. (2002), McWilliams and Siegel (2001), and Godfrey (2005). Our findings of the non-monotonic relation between CSR and costs of debt financing are also consistent with the evidence for Chinese firms documented in Ye and Zhang (2011).

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Perceptions of financial institutions towards social media adoption to business etiquette: a case of South African commercial banks

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ABSTRACT

This study aim to assess perceptions of using social media for business etiquette. This study employed a quantitative research approach whereby questionnaires were distributed to two commercial banks with the population size of 194 employees. Of these, 102 were returned and completed successfully, thereby generating a response rate of 53%. Among major findings in this study, the study reflected observations which suggest that employees are free to express how they feel through social media platforms, whereby 61% agreed, 14% were undecided, and 26% disagreed. This study will contribute to both the body of knowledge and financial institutions since there are scant publications on this subject.

Keywords: communication, business model, business etiquette, employees' perceptions, information

INTRODUCTION

Commercial banks struggle to fully control confidentiality [1;2; 3]; this is due to exercises imposed by employees through social media as banks employees' are evident to practice freedom of speech which legitimizes employees to reveal information. This perspective has triggered this study to be responsive on strategic issues that will help financial institutions which will be epigrammatic for every organization to manage the adoption of social media. [4] assert that banks need to start taking the social media industry seriously and develop a clear strategy. The prompting argument in this present study posit that financial institutions have been distastefully captured by intense battles of perceptions of using social media in commercial banks. In their business etiquette, social media is evident as a medium which distorts communication in all levels of structures of ABSA and Standard Bank, which have enormously confused their organizational settings and business models.

The primary aim of this study is to assess the perceptions which employees of financial institutions have towards adopting and using social media on commercial banks' business etiquette. [5] indicate that it is unknown how users' perception professional social media usage might differ from the private context in which implicit or explicit etiquette criteria apply. This study was also triggered by the employees in commercial banks who have gained autonomy to reveal information which continues to impinge on implications where employees use social media to gossip. [6] avers that due to the rapid advances of information technology and its enormous processing and storing capacity, privacy protection has become particularly important in the informational dimension. The aim of this study is to examine commercial banks' perceptions towards adoption of social media in their business etiquette.

The next section critically reviews existing literature on social media adoption to business etiquette, followed by methodology. Research findings will be presented and subsequent discussions will be provided. This study draws conclusions and provides recommendations.

LITERATURE REVIEW

Social media adoption across financial institution has revolutionized business etiquette because during the advent of social media, bank employees have taken for granted the control and use of information. Proliferation of social media and the widespread adoption of these media tools have brought dramatic changes in the business environment [7]. Commercial banks have no exceptions with regards to this dramatic impact of social media. Social networks have changed communication, shifting the way we consume, produce and interact with information, based on explosive migration to the web [8]. [9] indicates that social media is emerging as a most vital tool of different kinds of communication equipped with the ability to share information, mould opinion and connect individuals and communities and tools of active participation. These above-mentioned assumptions are in alignment with this present study and are feasible as the banking industry, nowadays, has been impinged and inflicted by ubiquity of social media, which continues to impose alternative resorts of adoption of its components to fit business etiquette in commercial banks. [10] posit that rapid progress in technology seems to have more impact on changes in the banking industry than any other one.

According to [11], as in advanced economies, new technology is affecting the structure and performance of the banking industry in the emerging markets mainly through its impact on the costs and the determination of optimal scale. Therefore, this study sought to investigate whether these changes in banking industry caused by social media have had a positive or negative impact. [12] assert that one of the most pervasive societal activities involves chatting about other people. [13] aver that social media sites are also vulnerable to cyber-criminal activities by disseminating wrong information which can cause embarrassment to the organization concerned. [14] indicate that the spread of false rumours during emergencies can jeopardise the well-being of citizens as they are monitoring the stream of news from social media to stay abreast of the latest updates.

This study is in accordance to the arguments posited by different researchers above to further test whether there is any harm in commercial banks with regards to autonomy of employees to freely express feelings and disseminate information. [15] strongly believes that manipulation of

information (e.g. promotion of fake news) and misinformation spreading can cause panic and fear in the population, which can, in turn, become mass hysteria. This study investigated whether employees in commercial banks do share any information or videos to spread false statements in the event of any conflicts.

Despite widespread social anxieties about the impact of digital technologies on traditional social ties, emerging findings indicate that social network sites and other social media have become important sites for cultivating personal relationships [16]. According to [17], social media are affecting the way people communicate, develop relationships and build trust in home and work settings. While this study was aligned with above mentioned perspectives of relationships on social media platforms, it further investigate whether commercial banks have utilized social media platforms to establish relationship congruent with business etiquette. There is a little evidence in the existing literature depicting that employees in commercial banks have enjoyed the right to reveal information as a practice of their freedom of speech. [18] indicate that defenders of freedom of expression have raised growing concerns over how legal and regulatory trends might be constraining freedom of expression at the very time that the Internet has become more widely recognized as a major medium for fostering global communication.

[9] contends that social media has become an important tool of self-expression and self-presentation. Therefore, this study is linked to the above perspectives as it investigates whether is there any right to legitimize the spread of information by employees in the commercial banks. [13] believe that with regards to personal privacy, employees who have uploaded their individual profiles cannot stop their distribution. [19] point out that South Africa has a sound banking system, healthy contractual savings institutions, risk-spreading capabilities, high levels of liquidity and sophisticated financial markets. This study also investigated how employees in commercial banks use social media platforms to establish and enhance relationships.

METHODOLOGY

Research design

This study resides in quantitative research design [20; 21] whereby a quantitative research approach was undertaken through adoption of structured questionnaires which were self-developed and administered by the researcher. A Likert scale [22] structured questionnaire addressed a dimension regarding perceptions in business etiquette in the advent of social media which discussed pertinent sub-dimensions concerning an expression of feelings among employees, employee gossip, distortion of communication, practice of freedom of speech, spread of false information and relationship establishment.

Measuring Instruments

The main instrument employed in this study was a self-developed and administered questionnaire [20] which is a five-point Likert scale structured questionnaire [23]. This instrument was relevant to guide the study to generate and collect data from commercial banks' employees.

Ethical consideration

This study ensured strict confidentiality through thorough administration of structured questionnaires by the researcher. Self-administered and developed structured questionnaires were distributed to a population size of 194 commercial banks' employees. In terms of consent, selection criteria were a pre-requisite for research subjects, and data was collected after proper ethical considerations, whereby a researcher obtained ethical certificate and clearance from the university's higher degree committee (HDC) and legitimacy from commercial banks.

RESEARCH FINDINGS

The following dimension presents the perceptions of social media adoption in business etiquette on commercial banks. Therefore, the data presented was collected and obtained through a structured questionnaire developed by the researcher. In this regard, all sub-dimensions were thoroughly discussed in this study. The high-reliability score of this study was 0.827, which exceeds the recommended Cronbach's alpha value of 0.700. This indicates a high degree of acceptable, consistent scoring for the research study. The dimension discussed in this study is as follows, represented as Table 1:

Table1: Perceptions in business etiquette:

Dimensions	Disagree	Undecided	Agree
Employees become freely in expressing how they feel through social media platforms.	25.5%	13.7%	60.8%
Employees use social media platform to gossip.	30.4%	21.6%	48.0%
Communication is greatly distorted by social media.	23.5%	28.4%	48.0%
Employees have rights to reveal information as the practice of freedom of speech.	32.4%	15.7%	52.0%
Employees share videos to spread false statements in the events of conflicts.	45.1%	22.5%	32.4%
Employees use social media platforms as an opportunity to establish relationships.	25.5%	16.7%	57.8%

Table 1 outlines perceptions of employees towards business etiquette, and findings shown were inconsistent in representation. Regarding the concept that employees become free in expressing how they feel through social media platforms, a total of 61% of the respondents agreed, 14% were undecided and 26% disagreed with this concept. The findings in Table 1 reflect perceptions that employees use social media platform to gossip, only 48% agreed, and 22% were undecided, and 30% disagreed. Table 1 also reveals that communication is greatly distorted by social media, and only 48% agreed, 28% undecided, and 24% disagreed. In the statement that indicated that employees have rights to reveal information as practice of freedom of speech, 52% agreed, 16% were undecided, and 32% disagreed. A total of 32% of the respondents agreed, 23% undecided, and 45% disagreed with the statement that employees share videos to spread false statements in the event of conflict. Lastly, Table 1 shows that employees use social media platforms as an opportunity to establish relationships, 58% agreed, 17% were undecided, and 26% disagreed.

DISCUSSIONS

The primary aim of this study was to examine commercial banks' perceptions to an adoption of social media in their business etiquette. This present study revealed a total of a high percentage of respondents who felt positive and agreed that employees have become free in expressing how they feel through social media platforms within these respective commercial banks. This finding is in agreement with [24] as they claim that today's constant internet connectivity and mobile devices has drastically changed our lifestyles from face-to-face to online conversations. Pertaining the perceptions that employees use these platforms of social media to gossip, a high percentage of agreement was shown by respondents that indeed, employees ultimately utilize social media platforms to gossip. This dimension is in disagreement with [25] who found that only the high level individuals in South Africa are using Facebook to engage in

discussions of a political nature and use platforms to connect to each other and share political information. Regarding communication in commercial banks, a high percentage of agreement was shown, which posit that communication is greatly distorted by social media.

According to [26], individuals that "utilize social media effectively are provided with an opportunity to listen, participate in, lead and guide the invisible hand of digital social conversation". This study revealed a high percentage of the majority of respondents who were in agreement that employees gained autonomy and had rights in revealing information as practice of freedom of speech. [27] is in agreement that this is possible because of available social media platforms like blogs which are a great resource to provide a continuous stream of information and information not delivered via news release or other means and typically focused on a niche topic. A negative response was reflected by respondents who did not agree that employees share videos to spread false statements in the event of conflicts. This finding is contrary to [28] who define communication as the sending and receiving of information; they add that it is important to receive correct and useful information furnished through social media. This study also reflected that a high percentage of employees in commercial banks use social media platforms as an opportunity to establish relationships. [29] disagrees with this finding because of claims that it is only virtual teams that rely primarily or exclusively on electronic forms of communication to work together in accomplishing their goals.

CONCLUSIONS AND RECOMMENDATIONS

It may be concluded in this study that social media adoption in commercial banks violated their business etiquette as the distasteful perceptions were shown in the use of information on social media. [4] suggest that bank managers need to identify ways to make profitable use of the social media. Managerial implications are that financial institutions should better their business models in order to adopt social media for proper communication among employees. The above-mentioned perspective is in accordance to this study's primary objectives as it strives for

proper adoption of social media in their business etiquette which will eventually bring corrective actions on their perceptions towards the use of information. The major influence observed in this study is the autonomy to reveal information among employees in commercial banks. Therefore, practice of freedom of speech which legitimizes employees to reveal information has become a problem and predominant counter-productive phenomenon which intends to violate commercial banks' business etiquettes. This study also observed that employees use social media to build relationships in the facets of commercial banks. This study recommends that:

- Managers in commercial banks show clear adoption and understanding of social media platforms because this is a strategic response which will help managers to intensify business models, business etiquette and proper communication of bank employees.
- Managers should facilitate training on new technology because it is affecting the structure and performance of the banking industry in the emerging markets mainly through its impact on the costs and the determination of optimal scale. This could be through constant induction of employees to be digital tools, which might assist the organization. Moreover, banks need to be cognisant and start taking the social media industry seriously and develop a clear strategy.
- Managers should ensure that there is a professional social media usage among employees because failure to do so will lead to excessive loss of financial assets.

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Roles of Regional Absorptive Capacity and Social Capital in Enhancing Firm-Level Absorptive Capacity

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Abstract

Using multilevel dynamics at the firm and at the environmental level, we test the role of antecedents – social capital and regional absorptive capacity – as knowledge conduits enhancing firm absorptive capacity. Using sample of 455 firms in 36 regions of the UK in a multilevel moderated mediation model we test the mediating role of absorptive capacity between social capital and firm innovation. We find that social capital is a more effective antecedent to innovation when firms have higher levels of ACAP. In addition, regional absorptive capacity, by enhancing knowledge flows and conduits to firm, moderates the mediating effect of absorptive capacity.

Introduction

Absorptive capacity (ACAP) refers to a firm being able “to recognize the value of new information, assimilate it, and apply it to commercial ends” (Cohen & Levinthal, 1990). However, exposure alone to knowledge may not be sufficient for these purposes. In fact, there may be antecedents to acquiring knowledge that are critical. For example, prior research has proposed that strategic alliances and stakeholder interactions are useful vehicles (Lane & Lubatkin, 1998; Renko, Autio & Sapienza, 2001). These activities, nevertheless, appear to be transaction specific, which means that they would not facilitate broader development or deployment (Lane, Koka, & Pathak, 2006). Strategic alliances or interactions with customers to develop a product could provide for the targeted assimilation of external knowledge (Prabhu, Chandy, & Ellis, 2005). Similarly, others have found that there are inter-firm antecedents such as complementarities among knowledge resources, compensation practices and organizational structures, as well as a familiarity with organizational problems and inter-organizational trust (Dhanaraj & Parkhe, 2006).

However, such inter-firm, transaction-focused learning may only be partially indicative of other types, which could also facilitate the acquisition of knowledge, of which our understanding is still quite limited. Nor do we know whether entrepreneurs can increase absorptive capacity by how they position their firms in the environment. For example, if a firm could position itself so that it could take advantage of an entrepreneur’s social capital, it is possible that such an effort could be helpful. Moreover, we do not know whether certain geographic regions offer entrepreneurs more opportunities to extend, assimilate and commercialize what they know. We refer to this regional positioning effect as regional absorptive

capacity (R-ACAP). It is possible that social capital and R-ACAP could account for most of both deliberate and accidental learning. More importantly, we do not know whether a firm’s R-ACAP could facilitate further development and exploitation of its social capital.

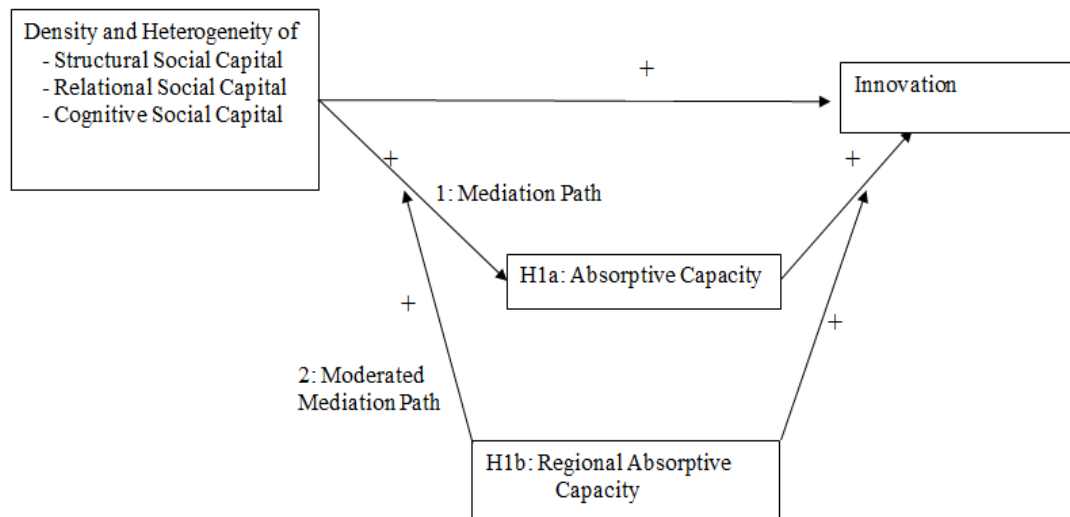
In this study, we question whether firms with higher levels of social capital use their ACAP more effectively. If they do use it more effectively, we follow up by asking what other factors could further enhance the positive effect of social capital on innovation related firm performance? In particular, we test whether firms located in regions with higher levels of R-ACAP are more efficient in acquiring and processing information by using their social capital. Thus, R-ACAP could increase (i.e. moderate) the effectiveness of ACAP as a mediator to social capital. Together, considering the roles of R-ACAP and social capital could provide a more comprehensive understanding of inter-firm knowledge exchange, which would go beyond the individual roles played by common structures, language and symbols (Nahapiet & Ghoshal, 2005), as well as that played by trust among the managers of these organizations. As Lane et al. (2006) suggest, our understanding of absorptive capacity has tended to accumulate without building a coherent body of knowledge, in part because it has often failed to link its antecedents with a dependent variable, such as innovation outcomes. It is our goal to address both of these prior shortcomings in this research.

The Research Setting and Data Collection

We use the social capital and small and medium-sized enterprise (SME) data collected from a 2000-2002 survey by (Cooke & Clifton, 2002). The survey measured changes in SME performance using (1) turnover, (2) profitability and (3) employment during the last three years. It also measured innovation as indicated by the introduction of products and processes to a new market. Using Likert scales, respondents were asked to assess the level of social capital on a series of questions. The geographical expanses of these social capital linkages were also surveyed. The survey was initially mailed to 3,600 SMEs, consisting of 100 SMEs (<200 employees) for each of the three administrative units of the twelve UK Standard Regions. These were drawn representatively from company data, according to the sectoral make-up of each locality. The survey excluded SMEs in agriculture, retail, and public

services because of low growth (agriculture), data reliability (retail) and the absence of SMEs

FIGURE 1 Hypothesized Model



(public sector). The SMEs were classified into five distinct five categories (1) high technology manufacturing, (2) medium technology manufacturing, (3) low technology manufacturing, (4) knowledge based services, and (5) other business services. Eventually, 455 usable responses were received resulting in a response rate of just over 14%.

Discussion and Conclusion

The objective of this study was to assess the role of R-ACAP in explaining the relationship between social capital and firm innovation using a firm's ACAP as a mediator. More importantly, we focused on R-ACAP as a positive moderator in enhancing the moderating relationship. We find for mediating role ACAP in exploiting social capital. In addition, R-ACAP plays a critical role in enhancing the impact of social capital on innovation. Beyond the intra-firm and dyadic exchanges studied in ACAP literature, our approach explains the role of regional embeddedness and social capital in affecting innovation levels. Compared with the innovation literature, which catalogues the direct effect of social capital on innovation, we provide a more fine grained analysis using several types of social capital. We find that social capital is a more effective antecedent to innovation when the innovators can exploit on higher levels of ACAP. In addition, we consider regional differences in innovation for enhancing knowledge flows and conduits to firm level. Previous ACAP studies have been limited to separate examinations at the regional level, the firm level, or at different levels of a firm. The approach that we report here incorporates multilevel dynamics at the firm level and the level of the environment levels, which we link through a firm's social capital. Understanding the potential roles of social capital and R-ACAP in facilitating ACAP is important for five reasons.

First, R-ACAP and social capital are important to leverage ACAP. ACAP involves the creation of new knowledge resources for a firm (e.g., through research and development) and the recombination of existing knowledge with externally acquired knowledge (Cohen et al., 1990). Thus, it is quite possible that selecting and/or developing nurturing conditions to assimilate new knowledge could enhance a firm's use of ACAP.

Implications

These findings have three important implications. First, firms operating in competitive, knowledge based industries may improve their performance by increasing their three dimensions of social capital – structural, relational and cognitive. The capacity to identify and exact knowledge, through properly combining heterogeneous and dense networks, may lead to strategic advantages, such as a greater flexibility in reconfiguring internal resources, the effective timing of knowledge deployment, more balanced exploitation and the exploration oriented renewal of a firm's prior knowledge to keep up with the dynamic environment. These enhanced capacities could help firms sustain a competitive advantage (Zahra et al., 2002): 195–196). Second, firms may be able to rapidly innovate without completely utilizing their realized ACAP because the constant renewal of knowledge stocks may enhance a firm's capacity to avoid offering industry-standard products that may become obsolete as a result of environmental changes (Sorensen & Stuart, 2000). Third, we provide a fine-grained theory of the individual dimensions of social capital and absorptive capacity, while tying in key explanation from economic geography. The identification and testing of these antecedents is a crucial step towards identifying key external antecedents, which could further enhance or inhibit a firm's ACAP. More importantly, we provide

theoretically and intuitively sound measures of social capital using both theoretical and methodological rationales. Rather than using a one dimensional construct for ACAP, recent efforts have focused on multidimensional approaches (Lane et al., 2006). We operationalize all such dimensions across multiple levels of analysis to enhance the validity and reliability of each measure. Both social capital and absorptive capacity have been conceptualized as multidimensional constructs.

Limitations

This study's findings are limited in the following ways: First, due to self-reporting from key informants, the results could be biased as well as common method bias exaggerated. However, our high levels of reliability and assured confidentiality could have reduced the effects of any conflated responses. In addition, we also conducted Harman's one-factor analysis that showed no evidence for the presence of one common factor. In addition if common method bias were prevalent, we would have generated different social capital factors, which could have had similar impacts on ACAP and firm innovation. However, different types of social capital exerted different impacts on the outcome. Similarly, R-ACAP acted as an external data source at level-2, provided an alternate control for common method bias by introducing intra-class correlations, which would have limited the consistent effects of common method bias. Second, it is possible that our measures did not completely capture the essence of constructs such as ACAP, R-ACAP and some types of social capital. More importantly, unlike Naphiet and Ghoshal (1998), we did not consider relationships among the three types of social capital. The relationships between the three types of social capital have found mixed support. In addition, we only explore social capital's direct effects. Third, our survey research was limited to firm level information with no nesting for the industry level. However, we consider role of industry to be exogenous to external knowledge acquisition. However, in our view, a lack of cross-nestings between regions and industries could have masked any combined effects. Future empirical studies in a wider variety of organizations within different industries are necessary to further generalize the findings. Finally, the data employed in this study were cross-sectional. Further longitudinal research should empirically establish the causal claim of our model.

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References can be provided upon request.

Model for the management of intangible assets in companies in emerging markets

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ABSTRACT

This research is intended for solving the problem of inadequate or inaccurate models, understood as business models, when applied in a challenging and atypical reality as the emerging markets. When it comes to explain the dynamics of value creation for those markets, relying on intangible assets as a critical resource of the knowledge economy, features as informality, poor institutions or corruption, cannot be overlooked. An instrument that represents a model for value creation involving intangible assets that has been used intensively in the last years is the Value Added Intellectual Coefficient (VAICTM). Despite all the advantages that applications of this instrument bring, results have also attracted some criticism; coming basically from some alleged theoretical contradictions and the diversity of results obtained by different authors. We consider that such mixed results are due in part to the fact that those applications are not paying detailed attention to the particular features in the markets where they have been tested. Therefore, the goal of this research is to fill this knowledge gap, by means of a quantitative, longitudinal approach, analyzing public companies in the consumer sector, in the countries of the Pacific Alliance (Chile, Colombia, Mexico and Peru) using their financial data for ten years, testing different database cuts, incorporating more emerging market features and making the necessary adjustments to improve the robustness and consistency of the results. The need for a particular model that proves to be better suited to the reality of the emerging markets, will help greatly in terms of a better understanding of the problems originated from the misrepresentation of intangible assets and for its adequate management by business and policy makers.

INTRODUCTION/BACKGROUND

Intangible assets are gaining more importance and recognition since their inception by the late 90s (Lev, 2001). However, lack of standard definitions and approaches make cumbersome to develop strategies across the board, more over if those are intended for companies located in markets that are in a different stage of development as the emerging countries (McGarvey, 2007). As emerging markets are progressively transitioning to be fully fledged knowledge economies, the same urgency on the managing of intangible assets as their developed counterparts apply. This has the caveat that it is not possible to deploy the same tools, unless the latter are adapted to factor in elements as informality and others typical of emerging markets. We consider that a model intended for the emerging markets and embedded with their features can be built, starting with the demonstration that sizeable assets are hidden in the

company's balances and from there, the evidence to entrepreneurs and governments, shall be compelling

enough to take more decisive actions in that regard, before the value creation becomes value destruction.

LITERATURE REVIEW

Literature about models for the management of intangible assets, has shifted its focus from the detection to the taxonomy and finally to measurement, which ultimately impacts management. This trend comes up with a set of postulates for the general management of these types of assets through a model. Models for intangible assets of all sorts, as an imperfect representation of the reality have their own shortcomings. They all have in common also that the realities that have been primarily tested are those where the knowledge economy is well embedded. The intellectual capital concept can be assessed at diverse levels as micro (companies, institutions etc.) or macro (countries, regions). In all those categories it is evident that the progress reached by the developed economies accommodates for model designs tailored to those economies, but not necessarily applicable to the realities in emerging markets.

Particular literature about models for the management of intangible assets in emerging markets, showed that the research efforts on that subject were more oriented to the detection of intangible assets at a macro level. For this purpose, assumptions were made that are applicable to economies in more advanced development phases, such as bigger, more evolved and sophisticated financial markets, low or practically nil informality and very aggressive R&D promotion schemes and IP protection which grants and nurtures the birth and development of intangible assets. However, although the same is not entirely true for emerging markets this does not mean intangible assets do not exist there. On the contrary, the researcher needs to be very aware of the pitfalls to assess those using tools that do not correspond to the latter's reality. Among the models that are being used in the last years, Value Added Intellectual Coefficient (VAICTM) has gained a growing popularity in the academia. We believe that this interest in VAICTM comes from the current state of the art, and that this instrument can be perfected until financial information and reporting is up to the task and produces better data to assess financially intangible assets as critics on that regard said (Lev & Gu, 2016). Criticism around VAICTM (Andriessen, 2004; Stähle et al., 2011; Starovic & Marr, 2003), have been clarified by Iazzolino (2013). However, mixed results, especially in emerging markets, are

still intriguing, (Carrington, 2013; Chen et al., 2005; Firer & Mitchell Williams, 2003; Maditinos et al., 2011; Pulic, 2000a; Rahim et al., 2011; Richieri et al., 2008). But this could be due to the different settings deployed and different approaches plus variables, transformed and/or removed, (Mondal & Ghosh, 2013; Nazari & Herremans, 2007) then a comparison is difficult in that regard. Therefore, developing a model, intended for the management of intangible assets tailored for those economies, will fill a knowledge gap and at the same time will contribute to the success of the companies (micro) in particular and the countries (macro) in general.

PROBLEM STATEMENT

The poor measure or complete neglect of intangibles in emerging markets hinders companies' profitability and growth potential, creating distortions on different fronts. As de Soto (2009) said, informal economic conditions, tend to coexist and are interwoven with the formal economy. Informality studies indicate that companies do hide output because of the economic incentives (Dabla-Norris et al., 2008). Even for formal, public companies, this dynamic may shrink their market value potential (represented by a "dent" in this market value) and therefore the intangible assets that a company in an emerging market undoubtedly possesses, with the following consequences:

1. The stock of the intangible assets is not recognized or it is being hidden in the total value of the company as a going concern.
2. By ignoring or not segregating the stock of the intangible assets, poor, bad and/or uninformed decisions are adopted about their property, accounting and destination.
3. Revenue streams coming from those assets in the form of royalties are not recognized, which means that financial and fiscal positions of the company end up distorted.
4. Late recognition of the revenue streams coming from the intangibles intended to remunerate the lawful and legitimate owners of those intangibles generate a distortion on the net worth of the incumbent companies and expose them to sizeable fiscal, financial and corporate governance contingencies, among others.
5. If we maintain this situation over time, the companies ignoring their intangible assets will lose their competitive edge, halt their growth path and even a reversal process of value destruction may commence.

RESEARCH QUESTION

R₀ What would the best management of intangible assets model be, for Emerging Market companies?
Minor research questions:

R₁ Is there any relationship between intangible assets and a firm's financial performance, controlling for other variables of emerging markets?

R₂ Is there any relationship between each of the three VAICTM components and firm's financial performance, controlling for other variables of emerging markets?

THE MODEL

We need to define an adjusted model that works on the basis of the VAICTM principles, but seeks to control for the noise provoked by the conditions in the emerging markets. To identify this concept we will name it as: Emerging Market VAIC or: EMVAIC. Adapting the model used by Chen et al. (2005) and by Carrington (2013).

Independent variables. Based on the research problem and the literature. These are intangible assets proxies as defined by the four IC efficiency scores used in previous studies of Pulic (2000). This approach requires the calculation of the value added (VA), Human capital (HC), Structural capital (SC) and Capital employed (CE). The value added (VA) represents the excess of the firm's output in terms of total income from the sales of products and services over the total expenses excluding employee costs, interest, dividends and depreciation.

Dependent variables. Financial performance indicators, return on assets (ROA), return on equity (ROE), earnings per share (EPS), and economic income (ECIN); and the market price to book value per share ratio (MB).

Control Variables for emerging markets (CVEM). Based on the literature and on the Delphi results, we might consider the following:

Firm Related.

Size = Total Assets (Alipour, 2012; Rahim et al., 2011); Natural log of market Capitalization (Hang Chan, 2009).

Leverage = Total Debt/Total Assets (Alipour, 2012; Rahim et al., 2011).

Industry Related

Industry = SIC Code. (Rahim et al., 2011)

R&D Intensity= Research and Development Expenses/Book Value of Common Stocks (Chen et al., 2005).

Advertisement Intensity = Advertising Expenses/Book Value of Common Stocks (Chen et al., 2005)

Model Related

Year = Dummy Variable, with year 2006 as baseline (Clarke et al., 2011).

Time Lag = Variable in t -1 (Clarke et al., 2011).

Revenue Growth = (Revenue in t- Revenue in t-1) /Revenue in t-1 (Amyulianthy & Murni, 2015; Djamil et al., 2013; Razafindrambinina & Anggreni, 2011).

Market Related

This is a set of the variables typical of emerging markets, reflecting economic circumstances that do have an impact on the components of the model intended to assess the impact of intangible assets. Selection will be made according to the research problem, the literature and the consultation with a panel of experts via a Delphi method. Hiding output, mainly for tax purposes has a direct impact on the value Added Component (VA) and the performance ratios altogether. Informality in the labor market hits productivity and finally the outcome of the Human Capital Efficiency (HCE) component. Property over physical assets (de Soto) and also on intangible assets, they both impact the Capital Employed Efficiency (CEE) and the Structural Capital Efficiency (SCE)

respectively Once market related variables like informality, corruption or institutions are assessed in the Delphi exercise, the following five regression models will be used:

$$ROA = \beta_0 + \beta_1 VAIC + \beta_2 CVEM + \varepsilon \quad (1)$$

$$ROE = \beta_0 + \beta_1 VAIC + \beta_2 CVEM + \varepsilon \quad (2)$$

$$EPS = \beta_0 + \beta_1 VAIC + \beta_2 CVEM + \varepsilon \quad (3)$$

$$ECIN = \beta_0 + \beta_1 VAIC + \beta_2 CVEM + \varepsilon \quad (4)$$

$$MB = \beta_0 + \beta_1 VAIC + \beta_2 CVEM + \varepsilon \quad (5)$$

Where: β is the vector of coefficients and ε the error on each equation.

$$ROA = \beta_0 + \beta_1 HCE + \beta_2 SCE + \beta_3 CEE + \beta_4 CVEM + \varepsilon \quad (6)$$

$$ROE = \beta_0 + \beta_1 HCE + \beta_2 SCE + \beta_3 CEE + \beta_4 CVEM + \varepsilon \quad (7)$$

$$EPS = \beta_0 + \beta_1 HCE + \beta_2 SCE + \beta_3 CEE + \beta_4 CVEM + \varepsilon \quad (8)$$

$$ECIN = \beta_0 + \beta_1 HCE + \beta_2 SCE + \beta_3 CEE + \beta_4 CVEM + \varepsilon \quad (9)$$

$$MB = \beta_0 + \beta_1 HCE + \beta_2 SCE + \beta_3 CEE + \beta_4 CVEM + \varepsilon \quad (10)$$

Where: β is the vector of coefficients and ε the error on each equation.

RESEARCH METHODOLOGY

We will apply a quantitative research process, non-experimental, that will be longitudinal with a panel design type, with the purpose of analyzing changes over time (p. 161). Design in the form of a model connecting intangible assets proxies as independent variables and performance indicators as dependent ones, subject to the way of treatment granted to some other intervening variables that are typical of emerging markets, will be suited to achieve the purpose of the research. There are several longitudinal studies involving intangible assets calculations like Rahim et al. (2011) and Mondal and Ghosh (2013). We will be applying different techniques that may include, but are not limited to: 1. Control Variables (i.e. size, leverage, age).(Alipour, 2012); 2. Time Lags (Chen et al., 2005); 3. Alternative definitions (i.e. SCE). (Mondal & Ghosh, 2013); 4. Cross Sectional (Firer, 2003) versus longitudinal (Chen et al., 2005); 5. Control Groups. (Zhicheng et al., 2016). 6.

Depending on the data level of the variables (i.e. market versus company level) we might be using multilevel techniques as Hierarchical Linear Models (HLMs) as was originally developed by Bryk and Raudenbush (1992) and applied in a longitudinal study for intangible assets by Andonova, V., and Ruiz-Pava, G. (2016).

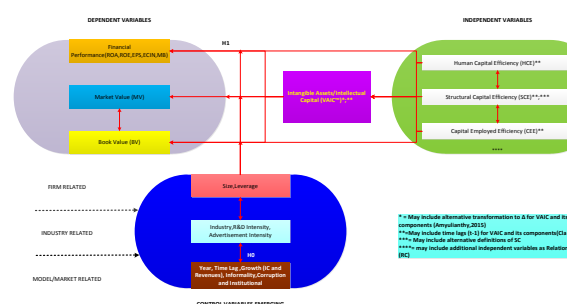


Figure 1 Conceptual Framework

Company level data will be obtained from a database produced by the information provider, Bureau Van Dijk, OSIRIS © for the Pacific Alliance countries (Peru, Chile, Colombia and Mexico) and a sector that traditionally carry intangible assets, such as consumer goods (BrandFinance, 2016; Maverick, 2015; Razafindrambina & Anggreni, 2008); 3) standardized information from audited financial statements allows comparisons across the board. Market related proxies might be obtained from: Institutions Economic Freedom of the World reports by Fraser Institute or the Index of Economic Freedom by the Heritage Foundation (institutions); ILO time series (Informality) and corruption index by Transparency International (corruption). This model is aimed to improve value generation in the companies and supporting the development of emerging markets, following what Kaplan et al. (2004) said and expanding the thesis of De Soto (2001) to relate to property of other asset types, apart from physical ones. Therefore, the contribution of this study will be its focus on emerging markets, as Firer and Mitchell Williams (2003) indicated, “considering that traditional measures continue to dominate, it is important to determine the extent to which such measures may intrinsically capture the contribution of intellectual capital resources and that this is particularly important in emerging economies that often have borrowed models from developed economies”(p. 351).

CONCLUSION

We presented the instrument that will be approached intended to answer our research question: What would the best management of intangible assets model be, for emerging market companies?. The conclusion of the literature review leads us towards an instrument that represents a model for value creation involving intangible assets in emerging markets. Such model can be built as an application of the theoretical principles of the Value Added Intellectual Coefficient (VAICTM). Criticism around this instrument comes from some alleged theoretical contradictions, and the apparent mixed results obtained by different authors, who might be overlooking particular features in the markets that it has been applied. Therefore, the goal of this research is going to be to fill this knowledge gap. We will achieve the research objectives, by means of a quantitative, longitudinal approach, testing different database cuts, incorporating more variables and making the necessary adjustments to improve the robustness and consistency of the results and to apply those in a longer time span in the countries of the Pacific Alliance. The study is limited to the Consumer Goods Industry in those countries, but we expect to shed some light for future research in the area and for the application in other emerging markets as well.

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The effectiveness of strategic management intervention in developing profitable high growth African businesses

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ABSTRACT

The objective of the research was to determine how the strategic management intervention of the African Management Services Company (AMSCO) has contributed to improved profitability, growth and sustainability of businesses in African countries. Businesses ranging from very small to multinational subsidiaries that were involved in a three year AMSCO intervention were selected to participate in the study. Self-administered questionnaires as well as financial and other records and documents of 55 participating businesses resulted in the findings that the intervention, especially with the placement of the AMSCO managers, was instrumental in successfully transferring business and management skills to local employees within these enterprises and organisations. During and after the intervention the profitability, growth, sustainability, employment numbers and retention of the majority of the businesses increased and training became a norm.

1. BACKGROUND

The failure, limited - and often no growth of many African businesses has been cause of concern and the focus of various studies aiming to identify the reasons [2]. Among the many reasons for slow growth and failure have been the lack of skills, training and assistance including strategic management interventions within these businesses. Businesses in Africa are often managed informally, by instinct, unstructured, irregular and with limited or no strategic management while the skills and abilities or lack thereof of the business owner determined its success or failure. In many cases documentation to guide the business forward and to plan for succession are unavailable [2].

Studies such as those conducted by the World Bank, proved that the workplace is where most adults learn and that businesses that are led by educated managers who took time to train their employees perform better in all aspects of business achievement. The extent and quality of training in these businesses have far reaching implications on their performance [8].

A case of strategic management intervention aimed at addressing the management skills shortage among African businesses are the efforts of the United Nation's Development Programme and the consequent creation of the African Management Services Company. A pioneer of capacity and skills development in the African business sector, the primary objective of AMSCO is to assist African businesses to become globally competitive, profitable, sustainable and grow through provision

of training and placement of qualified and experienced professionals to work with businesses [3].

Problem Statement

To insure that all headings are consistent, copy and paste the heading text into your paper. In various research carried out in southern African, it is estimated that only 1% of new businesses will transition to a successful established profitable business [5]. The problem is that the value and contribution of strategic management interventions in transitioning businesses into profitable and sustainable businesses are often not determined [2].

Research Objectives

To insure that all headings are consistent, copy and paste the heading text into your paper. The aim of this study was to determine the contribution of AMSCO's strategic management intervention in business development, profitability and growth of African businesses.

2. LITERATURE REVIEW

African businesses are increasingly being recognised as productive drivers of economic growth and development for their respective countries. It is for instance estimated that Small and Medium Enterprises (SMEs) account for 70% of Ghana's GDP and 92% of its businesses, 91% of formal businesses in South Africa and 70% of the manufacturing sector in Nigeria [6]. Business development has been identified as a crucial contributor to economic development. The lack or shortage of skills have been identified by many researchers as major contributors to business failures. Equipping entrepreneurs with the necessary or required skills in order to successfully bring about employment, create more jobs, internationalise and stimulate wealth, remain a serious challenge in Africa [4]. Businesses realise increasingly the need of employing specialised people, with the skills to develop innovative solutions that give them a competitive edge and enable their continued survival.

Managerial Intervention Approaches and Strategies

The success of businesses in today's turbulent markets depends largely on their ability to engage in environmental scanning activities in order to understand trends in the environment [9]. As the environment of the business is dynamic rather than static, turbulent rather than stable, and requires

managerial agility and capability, African businesses and especially SMEs should be assisted to think and act strategically [7].

Some of the Management Interventions Carried out by AMSCO.

When AMSCO intervenes in a business, it provides hands-on, experienced, middle - to top level managers to selected companies on three to five year contracts. Their key aims include assisting companies to:

- Install management systems
- Improve operational and financial performance
- Transfer capacity to local managers

AMSCO provides technical and administrative backup support to these managers and monitors their progress to ensure that the targets of the client businesses are met.

3. RESEARCH METHODOLOGY

The population of this study were 247 enterprises that have had AMSCO strategic management interventions within the southern African region during the period 2008 - 2011. The assisted enterprises were distributed across seven southern African countries namely South Africa (81); Angola (26); Zambia (67); Malawi (12); Botswana (16); Namibia (20); and Mozambique (25).

In the first stage of data collection a self-administered questionnaire was distributed to a purposive sample of 100 businesses that completed a three-year intervention process by AMSCO. For the second stage information on the 55 enterprises that completed the questionnaire were retrieved from company records such as reports, financial statements, employment records, industry documentation, the AMSCO Manager's quarterly reports and relevant databases. Comprehensive and adequate information and records were retrieved for 45 businesses. The questionnaires, reports, statements and documents were analysed to determine the performance of the enterprises supported by AMSCO prior to, during and after the strategic management interventions. Through this process the impact of the strategic interventions on the businesses were determined.

4. RESULTS

The results of the survey and analysis of the business records were combined to determine the profile of the businesses and demographics of the owners

Business profile

Sixty-five percent of the businesses were SMEs and 35% large businesses. The revenue of the businesses ranged between \$5 286 and \$424 670 000 per annum on commencement of the intervention. The number of employees ranged between 4 and 2513 in the first year.

The businesses included in the study were nine businesses in tourism and hospitality; seven

agricultural businesses; five businesses in finance; three insurance companies; two retail companies; two pharmaceutical companies; two manufacturing companies and one of each of commodity trading; export and trading; media and communication; transport; development; professional services; education and property.

The business structures were 45% fully locally owned; 25% joint venture with minority foreign ownership; 22% joint venture with majority foreign ownership; 4% multinational subsidiary, 4% did not report.

At 75% the majority of the business owners and managers of the participating companies were male, 70% were aged between 36 and 55 and 85% have Bachelor degrees or post graduate qualifications.

Business performance results

To determine the profitability and growth of the businesses their financial performance, employment information and business practices were evaluated before and after the intervention.

Financial Performance and Employment

Results from the survey regarding revenue, profitability and employment pre- and post AMSCO intervention on respective statements were as follows:

Increase in revenue 31% pre, 84% post.

Positive cash flow 22% pre, 69% post.

Waste in resources 55% pre, 22% post

Management able to plan 24% pre, 82% post.

Made profit 22% pre, 67% post.

Increase in profits 43% pre, 72% post.

From the data retrieved from AMSCO's records 74% experienced an increase in revenue after the AMSCO intervention, 57% experienced an increase in EBITDA and 62% experienced an increase in net profit.

Employment opportunities increased 58% pre, 91% post

Retention of staff 91% pre, 100% post.

Premature resignations 56% pre, 36% post

Training of local employees 60% pre, 96% post.

Increase in employee numbers in 76% of the businesses and a decrease in 22%. The net change in employee numbers over the three years varied between -30 and 4,586 with a total of 6577 jobs created and 182 job losses, a net gain of 6395 jobs. The average number of new jobs per business were 48, excluding the outlier were 4586 jobs were created.

Business practices, systems and processes

Results from the survey regarding business practices, systems and processes pre- and post AMSCO intervention on respective statements were as follows

good business practices 34% pre, 84% post

good corporate governance 28% pre, 83% post

efficient production 20% pre, 87% post

local employees in management 38% pre, 91% post

5. DISCUSSION OF RESULTS

There was a marked increase in revenue, profitability, EBITDA and positive cash flow,

improved planning and a reduction in resource waste after the intervention. The improved financial performance correlated positively with the development of management and employee skills.

On the negative side 21% of the enterprises experienced a decrease in revenue, 31% in EBITDA and 33% in net profit. Deeper analyses indicated that in addition to management, some businesses had other underlying problems that needed to be dealt with. These included governance issues and capitalisation challenges especially with smaller start-up enterprises faced with challenges of expansion even when the new management could see and had recommended expansion.

Increased employment, - employee retention and - training were experienced in the majority of businesses. The decrease of employment numbers in some businesses did not diminish these achievements. It was noted that some businesses had to downscale their overheads, redundancies being a part of these, in order to restructure and perform better afterwards.

The reported improvement in business practices, corporate governance, production efficiency, locals in management and staff training after the intervention are remarkable.

LIMITATIONS OF THE RESEARCH

The sample was restricted to businesses that had completed their three to five year intervention with AMSCO and of sufficient management records and reports were available.

A substantial number of business owners and managers had sold or resigned from the businesses and could not be contacted.

Limited response to questionnaires and incomplete AMSCO data on some businesses.

Possible misrepresentation by managers to create a positive impression.

RECOMMENDATIONS AND MANAGERIAL IMPLICATIONS

For similar intervention models recommendations based on the results of this study are:

More funding to assist smaller enterprises in affording the required skills and training.

Businesses should enter an agreement at senior management levels with objectives, a plan, clear job descriptions and a monitoring system.

Businesses should work with universities to provide management training.

Longer intervention periods as a term of three years is often too short, especially for new and innovative businesses.

Training should become an integral part of management strategy.

Intervention by experienced skilled management is valuable as it contributes to the success of African businesses. Management interventions assist to improve business performance and transfer required skills to staff with limited experience.

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The emotion management competencies challenges that labour relations practitioners face in the South African Public Service

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ABSTRACT

This article reports on the findings of a qualitative content analysis study to explore the emotion management competencies required of labour relations practitioners in the South African public service. Data were gathered through semi-structured interviews, where seventeen labour relations experts were interviewed, representing the labour relations component in the South African public service. The data were coded and categorised and themes were identified that characterised the participants' experiences, perceptions, views and evidence regarding the emotional management competencies of labour relations practitioners. Six emotion management competencies that are essential to success and efficiency in the role of labour relations practitioners were identified. The findings of this study could lead to a new theory for the advancement, training and development of labour relations practitioners.

INTRODUCTION

Labour relations is a complex and dynamic discipline which exist in shops, offices, factories, mines, hospitals, public service departments, on farms and in private households between domestic workers and their employers [7, p. 1]. Labour relations manifest within the broader context of many roles, rights, expectations, obligations and duties in the workplace, and what makes it even more complex is that these roles, rights, expectations, obligations and duties may either be individualised or managed in group terms [13, p. 435]. Emotion management is the ability to maintain control when situations, people and events make excessive demands [1, p. 365].

LITERATURE REVIEW

The practices and activities in managing public service workplace labour relations can be viewed as those aimed at improving relations and cooperation, and optimising conflict levels among a variety of employees, irrespective of the existence or nonexistence of trade unions [21, P. 487]. The

functioning of labour relations within the environments as well as workplace level labour

relations management practices in the South African public service dictates specific roles, responsibilities and competencies of the labour relations practitioners in order to promote cooperation and integration and minimise conflict in public service labour relations [3, p. 80].

Emotion management is an important mechanism for public servants to acknowledge emotions and recognising coping strategies [1, p. 365]. Emotions can be classified into several components such as happiness, sadness, fear, anger, surprise and disgust [17, p. 3]. As a result of skilful emotion management, individuals gain interpersonal and material rewards, status hierarchies and existing structural arrangements are sustained, and group cohesion is generated (through norms of sympathy and gratitude exchange, for example [8, p. 206]).

In order to research more thorough into the topic Emotion management, it is important to clarify a few words that will be used throughout this paper. Firstly, conflict management is the landscape against which the management of emotions will take place. Conflict management entails the approach to facilitate between parties to find a peaceful solution to a disagreement between them [8, p. 565]. Conflict is inevitable in human relationships, it may be real or perceived; it can be prevented or resolved; it can be managed and can be eliminated [13, p. 5].

Secondly, emotional intelligence means the ability to monitor one's own and other's emotions to discriminate among them and to use the information to guide one's thinking and actions. Furthermore it involves self-awareness (ability to understand one's own emotions), self-management (ability to keep negative emotions and impulses under control), and self-motivation (the drive to achieve despite setbacks, developing skills to attain target and taking initiative to act on opportunities) [17, p. 1].

Thirdly, diplomacy is described as tact when dealing with people [9, p. 24]. Furthermore diplomacy implies an understanding in terms of a

relatively stable collection of social practices consisting of easily recognised roles coupled with underlying norms and a set of rules or conventions defining appropriate behavior for, and governing relations among, occupants of these roles [11, p. 34].

Fourthly, assertiveness is described as the ability to state positively and constructively one's rights or needs without violating the rights of others [2, p. 367]. In other words it refers to the ability of being self-assured and confident, expressing thoughts, feelings and beliefs in direct, honest and appropriate ways [3, p. 218].

Fifthly, resilience can be seen as an ability of people to adapt and cope successfully, to overcome or "bounce back" from disadvantaged life circumstances, risk, serious threats and adversity [22, p. 82]. It refers to the capacity to withstand stressful and difficult situations and recover quickly and bounce back [3, p. 222].

Lastly, self-efficacy is defined as people's judgements of their capabilities to organise and execute courses of action required to attain designated types of performance, it is a judgement of what one can do with whatever skills one possesses [15, p. 79]. In this study self-efficacy, refers to a person's beliefs about their ability and capacity to accomplish a task or deal with the challenges of life [3, p. 223].

RESEARCH METHODOLOGY

Problem statement and objective

The labour relations practitioner functions in an intimidating, stressful and emotionally loaded environment under circumstances that require patience and specific temperamental skills together with the ability to withstand pressure.

The objective of this research was to explore the emotion management competencies challenges that labour relations practitioners face in the South African Public Service.

Research approach and design

The research is conducted on the emotion management competencies challenges that labour relations practitioners face in the South African Public Service. This type of research lends itself to qualitative research. The reason for this is that qualitative research methods are intended to better understand the human interactions, meanings and perspectives, how these perspectives are shaped by, their physical, social and cultural contexts as well as the specific processes that are involved in maintaining or altering these phenomena and relationships [14, p. VIII].

Research strategy

For the purpose of the research the researcher used direct content analysis, where existing theory from the literature review guided him in identifying key concepts or variables as initial coding categories [23, p. 308].

Research population

The target population for this study was the labour relations practitioners in the South African public service covering a variety of State departments as well as all provinces in South Africa, thus ensuring geographical representivity.

Research sample

A purposive sampling technique was used to identify 17 participants for this study. Purposive sampling enabled the researcher to use his judgement to select participants that would best enable him to answer the research questions for this study [19, p. 237]. The 17 participants were from all nine provinces in South Africa, and their qualifications varied between 4 with Masters degrees, 4 Post graduate degrees and the rest relevant three-year tertiary qualifications. Their experience varied between 12 -24 years.

Data collection

The researcher used semi-structured interviews as a data collection method, "to explore, probe, and ask questions that will elucidate and illuminate that particular subject...to build a conversation within a particular subject area, to word questions spontaneously, and to establish a conversational approach [17, p. 343]. All the interviews were recorded on a digital recorder and transcribed verbatim.

Data analysis

Data analysis in this phase of the research occurred as soon as the researcher had received the transcription of the first interview. The research process was inductive in nature. Researchers use inductive data analysis where they construct their patterns, categories and themes from the bottom up by organising data into progressively more theoretical units of information [5, p. 194]. The researcher applied Tesch's data analysis process, which involves preliminary analysis of the data by reading and rereading the transcripts and identifying possible themes and topics, which are then organised, leading to the development of categories without destroying the meaning of the data through intensive coding [20, p. 142].

FINDINGS AND DISCUSSIONS

Conflict management

There is testimony from the participants about the high frequency of conflict resolution experiences within departments that leads to pressure on the labour relations practitioner, whose responsibility it is to manage the whole process. In addition evidence about the complexities of the manifestations of conflict as well as the advising and consulting role the labour relations practitioner plays in this regard corresponds well with the value attached to it by the Queen's University in Canada [10, p. 7].

Emotional Intelligence

Participants agree on the intimidating environment in which they function where there are lots of emotions involved because one is dealing with human relations and its various challenges.

Furthermore the participants expressed their frustrations when dealing with the reluctance of managers in executing their labour relations responsibilities that requires patience and specific temperamental skills. These views are supported by Patra [16, p. 3].

Diplomacy

Diplomacy as an approach is often used by the labour relations practitioners to deal with the reluctance of management to exercise their labour relations responsibilities as well as to defuse conflict situations before it escalate correspond well with SHRM's HR Competency Model [4, p. 208].

Assertiveness

The participants provide evidences of situations of the intimidating environment that labour relations practitioners find themselves in, which require an assertive frame of mind, such as the ability to withstand pressure, a courageous and strong attitude and a measured personality. The importance of an assertive frame of mind is supported by theorists [6, p. 90].

Resilience

In accordance with the views from the Public Service Commission, the majority of the participants agree that they function in a stressful environment, work under pressure with incidences of victimisation and intimidation that require a calm and composed approach to deal with these extreme conditions [18, p. 19].

Self-efficacy

The participants shared experiences where they are required to rescue conflict situations that require the ability to maintain determination and to stand their ground on certain decisions, which is shared by theorists [22, p. 82].

CONCLUSION

As the labour situation and ever present conflict intensifies, it will expose the labour relations practitioner to an intimidating, stressful and emotionally loaded environment with circumstances that require patience and specific temperamental skills, together with the ability to withstand pressure.

From the pertaining findings and discussions the importance of emotion management as well as the challenges that it pose to the labour relations practitioner has become evident. The analysis of the emotion management competencies provide a sound theoretical basis to develop emotion management specific assessment tools and developmental interventions aimed at enhancing the management of emotions in an organisational context from a labour relations perspective.

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Measuring human capital disclosure

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ABSTRACT

Disclosure of human capital in annual reports enable HR Professionals with information to improve their investment decisions on a broad range of people-related issues. When contrasted against the other dimensions of intellectual capital, namely, structural and customer capital, disclosed human capital information provides useful insights on how people contribute towards organisational performance. This study applied a self-constructed disclosure index with four constructs to assess the extent of human capital disclosure in the 2015 annual reports of the Top 40 Johannesburg Stock Exchange (JSE) listed companies in South Africa. A Cronbach's alpha of 0.872 was attained confirming the internal consistency of this instrument. Overall, 26% of human capital information was disclosed qualitatively, quantitatively and in monetary value compared to 33% for both structural and customer capital.

INTRODUCTION

Empirical studies on human capital disclosure investigate the extent to which corporate annual reports share people related information. Annual reports are considered the most valuable source of information for shareholders to improve investment decision-making [1] [2]. In the interest of enhancing corporate governance, disclosure of information is asserted mandatorily as a professional accounting regulation, legislation and listing requirement [3]. Alongside statutory requirements is the increasing expectation for organisations to disclose voluntary information which is considered critical towards sound investor decision making. In response, organisations are becoming proactive by disclosing voluntary information, particularly in human capital [4]. [5] confirm that the hidden market value of companies can be addressed through voluntary human capital disclosure. A variety of disclosure indexes which include the key intellectual capital (IC) constructs, namely, structural, human and customer capital are used to assess the extent of information shared by organisations. As such, the main aim of this study was to apply a self-constructed index to measure human capital disclosure relative to the other three constructs including human resource (HR) risk.

LITERATURE REVIEW

Substantial research in measuring human capital focuses on establishing the relationship between this intangible asset and organisational performance. Most of these studies present profound results on how information disclosure can leverage investor confidence [1] [2] [4] [5] [6]. Human capital measurement and reporting is considered a key driver of productive and innovative organisations.

The theory of human capital illustrates that the disclosure of people-related information in annual reports is recognised as a significant determinant of corporate value. Although most of this information is not a mandatory requirement in terms of the International Financial Reporting Standards IFRS and the General Accepted Accounting Practices (GAAP), voluntary disclosure is encouraged to reduce information asymmetry and enhance investor decision making [6]. Voluntarily reporting choices on human capital disclosure confirm the extent to which companies share information on people-related investments to highlight the overall impact on the financial success. To assess the extent of disclosure in this regard, measurement indexes containing a variety of items are used empirically. Accordingly, a disclosure index can be defined as a measurement instrument with different constructs used to evaluate the extent of information disclosed in the annual reports [1]. The construction of disclosure indexes must be well-grounded on literature review. Previous studies have demonstrated the effect of information disclosure on the company's expected market value by using self-constructed disclosure indexes [1].

Nature of information disclosure

Annual reports contain financial and non-financial information expressed qualitatively, quantitatively and in monetary terms. Qualitative information are narratives or words explaining the state of affairs in the organisation at the end of the financial period. Quantitative expressions reflect the numerical content disclosed in annual reports while the financial data is represented in monetary values [2]. Human capital disclosure include items such as employee training, number of employees, compensation plans, benefits, incentives programs, rate of staff turnover and employee value form part of the annual corporate disclosure [7].

Structural capital reporting contains information on patents, trademarks, subsidiaries, ownership, business processes, culture, management structure, computer equipment, internal control and systems. Information regarding the organisation's customer capital is concerned with marketing, media communication and interaction with stakeholders such as the government, banks, communities and suppliers [5]. Additionally to the traditional components of IC, HR risk including measures such as absenteeism, strikes, resignations, deaths and ill-health affect the contribution of human capital towards organisational performance. HR risk must be identified and effectively managed for improving decisions on people embodied assets [8].

Disclosure measurement

Measuring information disclosure has become more significant for organisations. [4] [6] emphasise the use of disclosure indexes as measurements instruments to assess the extent of information disclosed in annual reports. The construction of disclosure indexes can have items ranging from 35 to 224 [9] with a scale of 1 to 2 where the value of 2 means that information is disclosed quantitatively, 1 indicates qualitative reporting and 0 demonstrates non-disclosure in annual reports. When testing for internal consistency, the disclosure index can yield a Cronbach's alpha of any value within the range of 0.7 and more [10], although in certain instances these can be acceptable at less than 0.7.

This study used a self-constructed disclosure index to evaluate the extent of human capital information disclosed in the annual reports.

RESEARCH DESIGN

Research method

A content analysis of the corporate annual reports was carried out by using a disclosure index to measure human capital disclosure. According to [9] content analysis methods with applied disclosure indexes facilitate the information gathering process for improved measurement practices.

Sampling strategy

A sample of the Top 40 (JSE) listed companies was drawn for the 2015 financial year. Listed companies are selected for disclosing audited information in annual reports [11]. The Top 40 JSE constituents are the largest companies by market capitalisation in South Africa and spread across the various sectors such as the financial services, mining, retail, telecommunications and petroleum. Listed companies are making progress in disclosing information on structural, customer and human capital [12].

Measuring instrument

A self-constructed disclosure index including the structural capital, customer capital, human capital and HR risk was developed. Self-constructed disclosure indexes depend on the research question under investigation and can be categorised according to a set of constructs [9]. Existing literature was used as a guide to identify, and score the measurement items. This led to the retrieval of 129 items which were distributed across a total of 16 sub-categories within the four constructs. The structural capital construct produced 44 items; human capital included 28, customer capital 39 and HR Risk 18. To assess the disclosure content, the index was administered by using a score of 0, 1, 2 and 3.

In this case, 0 means items not disclosed (ND); 1 disclosed qualitatively (DQL); 2 disclosed quantitatively (DQNT) and 3 disclosed in monetary value (DMV). Scoring of items represents the measurement scale of disclosure indexes [9].

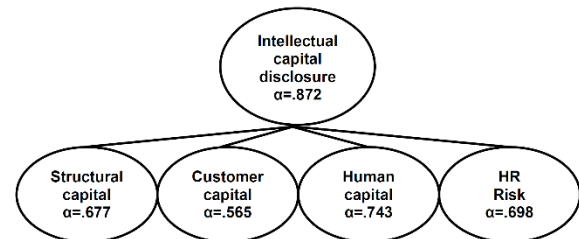
Data analysis

SPSS was used to analyse data in terms the internal consistency of the disclosure index and descriptive frequencies to indicate the extent of HC disclosure.

RESULTS

The self-constructed disclosure index yielded an overall Cronbach's alpha of 0.872 and confirms reliability. Figure 1 below presents the complete results with a reliability score of 0.743 for human capital relative to the other constructs.

Figure 1: Reliability test



A factor analysis was performed to clarify the underlying constructs of the disclosure index with the following summary of results in Table 1:

Table 1: Factor correlation matrix

Disclosure	SC	CC	HC	HRR
SC				
IP	0.325			
Structure	0.372			
Culture	0.397			
Philosophy	0.229			
Processes	0.140			
IT	0.232			
Infrastructure	0.353			
CC				
Relationships		0.360		
Distribution		0.246		
Marketing		0.166		
Partnering		0.126		
Reputation		0.210		
HC				
Employees			0.160	
Earnings			0.294	
Training			0.312	
HRR				
Risk profile				0.156

Disclosure frequencies in Table 2 below indicates the extent of human capital disclosure relative to the other constructs.

Table 2: Disclosure frequencies

Constructs	Frequencies				
	ND	DQL	DQNT	DMV	%
SC	508	867	26	284	33
CC	461	863	40	256	33
HC	239	642	81	207	26
HRR	492	240	21	3	7

The extent of human capital information signifies a growing move towards voluntary disclosure.

DISCUSSION

Managerial implications

HC disclosure practices apply the intellectual capital framework which include the structural, customer and human capital dimensions. This study added the HR risk category to highlight the level of information disclosed pertaining to the unfavourable consequences of human capital investment. This is important for refocusing the companies' human resource strategic plans. Specifically, the overall disclosure in human capital indicates the extent to which the JSE listed companies in South Africa make significant progress towards voluntary disclosure beyond the statutory required information. The monetary disclosure of human capital presented in the disclosure frequencies provide useful insights on the actual investments companies make in enhancing their human assets. This information is important in establishing the relationship between human capital investment and business performance. Also, the sufficient narrative reporting on human capital can be used for understanding the valuable impact people bring to the organisations. These narratives are more insightful when read in conjunction with the related monetary expressions contained in the annual reports. As such, human capital disclosure provides HR Professionals with the opportunity to improve their business acumen by understanding the impact of people contribution to the organisations.

Possible limitations of the study

The study was limited to the Top 40 JSE listed companies in South Africa. Although these carry the highest market capitalisation, the inclusion of more constituents would improve the structure of the disclosure index and produce more disclosed information.

Suggestions for future research

The expanded version of the disclosure index applied in this study can be subjected to a broader JSE listed population. Validity tests to assess the inter-item correlation must be carried out to determine the association between items of one and more scales.

Conclusion

The paper aimed to measure the extent of human capital disclosure in the annual reports. A key finding is the growing voluntary disclosure by most constituents of the Top 40 JSE listed companies.

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Evaluating organizational commitment of call centre agents

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Abstract

Call centre operations are a leading industry in South Africa for employment. Call centres are plagued by high levels of employee turnover and are challenged by ensuring employee commitment. The study sets out to evaluate organizational commitment within a call centre. The study is quantitative in nature and follows a cross sectional approach. Data was collected using a convenience sample, which yielded a response rate of 282 respondents. An existing questionnaire was utilized for organizational commitment by Meyer & Allen (1997) and the retention factor scale by Döckel (2006). To ensure internal consistency, the psychometric properties of the questionnaire for validity and reliability were assessed using Factor Analysis and Cronbach's Coefficient Alpha. Descriptive and Inferential statistics were employed. The findings of the study reflect that retention factors will enhance the commitment of call centre agents, and male employees experienced higher level of commitment.

1. Background to the study

Call centres have become a multi-faceted communication centre and are regarded as a fast growing industry in the service sector (Swart, 2006). They are credited to have a vital role in developing customer centric strategies (Burns, 1995), and have become increasingly prominent for customer relationship management and increasing customer satisfaction (Curry & Lyon, 2008; Kasabov & Warlow, 2010; Rod & Ashill, 2013).

Services offered at call centres are often classified as sweat shops of the digital era and assembly lines, due to the standardisation and routinisation of work and its perceived impact towards employee well-being (Holman, 2003; Omar, 2005; Rensburg, 2010; Taylor & Bain, 1999). The underlying forces that are associated with call centres are emotional burnout, increased labour turnover and high levels of stress (Lombard, 2009). Furthermore, call centre employees are regarded as emotional labourers due to the high levels of service and customer satisfaction required (Brannan, 2005; Ferreira & Saldiva, 2002). A shift towards challenging the call centre industry's assembly line and sweatshop image is required and hence, calls for a redesign of jobs in call centres (Boonzaier & Boonzaier, 2008; Crome, 1998; Hauptfleisch & Uys, 2006). The study sets out to evaluate organizational commitment (OC) of call centre agents, as well as to determine which retention

factors may enhance employee commitment and evaluate commitment of amongst male and female agents. There is a need for call centres to generate

higher levels of commitment, as it is a critical factor to their successful operation (McGuire & McClaren, 2012).

1. Literature review

Turbulent business environments have aroused implications for the attraction and retention of employees (Dhanpat & Parumasur, 2014). However, organizations grapple to retain and elicit commitment from their employees (Chew & Chan, 2007). OC is one of the most challenging concepts researched in the field of organizational behaviour and human resource management (Cooper-Hakim & Viswesvaran, 2005). Notably, OC is one of the most popular and thoroughly validated multidimensional model (Meyer & Allen, 1991). OC refers to the nature of an employee's attachment to their organization (Shahnawaz & Jafri, 2009), and relates to how employee's identify with and their involvement in a particular organization (Mowday, Porter & Steers, 1982). Differing approaches to the definition of OC exist. Malik, Nawab, Naeem and Danish (2010, p.18) defined OC as "the employee's emotional or affective response or attachment, identification with and involvement in the organization". OC is considered to be a three dimensional variable consisting of three components, namely, affective, continuance and normative commitment (Meyer & Allen, 1996). Common themes exist in the three component model namely, commitment binds an individual to an organization and hence, reduces turnover. In this view, Meyer and Allen (1991) considered OC to be a psychological state characterised by:

- the relationship with the organization and
- the decision to continue their membership with the organization.

Such characteristics describe the three components namely: **Affective commitment** - refers to the level at which employees are psychologically attached to the organization and possess a sense of belonging (Kumar & Eng, 2011). Employees that are affectively committed to the organization possess a willingness to pursue the organization's goals, and have feelings to remain with the organization (Bergman, 2006; Rhoades, Eisenberger & Armeli, 2001). **Continuance commitment** - according to Sikorska-Simmon (2005), this type of commitment is based on the costs that would occur if an employee leaves the organization. This consistent with the definition by Meyer and Allen (1997, p. 11) "awareness of the costs associated with leaving the organization". **Normative commitment** - this type of commitment develops by means of socialization experiences which places emphasis on loyalty (Morrow, 2013). In hindsight, employees

remain in the organization as they may feel obligated to (Anttila, 2014).

(ア) Benefits of OC

Positive outcomes of committed employees exist for employees and organizations (Greenberg & Baron, 2003) as well as consequences. Organizations that have employees that are committed results in improved relationships and increased organizational performance (Rylander 2003). High levels of commitment is noted to enhance employee well-being (Meyer & Herscovitch 2001) and influence job satisfaction (Vandenberg & Lance, 1992). From an organizational perspective, committed employees have the potential to influence organizational effectiveness (Meyer & Herscovitch 2001). Consistent to this, committed employees are likely to enhance productivity (Shahid & Azhar, 2013).

Consequently, employees who are too committed may result in an effort-reward imbalance, and may impede work-life balance, burnout, and lead to obsessive and unrealistic work patterns or even a neurotic compulsion to succeed (Kinman & Jones, 2008; Manetje, 2006). However, these potential effects are low, they are likely to be detrimental to the organization. Low levels of OC leads to employees becoming unproductive, reduced efforts and experience job dissatisfaction (Morrow, 1993).

Notably, gender distributions in organizations influences progression. According to Maume (1999), women who work in male-dominated professions experience difficulty advancing, due to gender bias experienced. In such environments, women may have fewer opportunities for development, coaching and mentoring (Lai, Lin & Leung, 1998) and could be less committed to their employer (Martins & Coetzee, 2007).

(イ) Factors affecting retention

Organizations need to make efforts in identifying factors that influence the retention of call centre agents (Barnes, 2013). Notably, retention factors facilitate the decisions whether an employee leaves or remain in the organization and hence, organizations need to prioritize against this. From a South African perspective, Döckel (2003) identified six critical retention factors.: **Compensation** – provides employees with a sense of security and recognition (Hoyt & Gerdloff, 1999) interms of monetary and non-monetary rewards (Armache, 2014). Employees that are acknowledged and rewarded for their work experience higher levels of attachment and commitment (Salie & Schlechter, 2012).

Job content - refers to the characteristics and nature of one's job (Dyk & Coetzee, 2012). Employees that experience skill variety in their job and autonomy are more likely to remain committed to the organization (Döckel, 2006). However, work at a call centre is characterized as repetitive and lack creativity and flexibility which leads to increased stress levels and boredom (Harry & Coetzee, 2013).

Career advancement – relates to the formalized system in which organizations focus on individual

career needs and organizational objectives for the organization to gain and maintain competitive advantage. A lack of opportunities to grow are likely to hinder job satisfaction (Harry & Coetzee, 2013). The advancement of employees are pertinent in increasing an employees' affective commitment and hence, reduce their intentions to leave (João, 2010; Morrow, 2011; Weng, McElroy, Morrow & Liu, 2010).

Training and development - refers to the acquisition of skills that will enhance an employee's performance and advancement (Döckel, 2003). Employees seek such opportunities that facilitates their growth. Notably, training acts as vehicle to enhance OC through an increase in self-worth and importance (Dyk & Coetzee, 2012).

Work life balance – refers to the balance between an employee's work and family life (Mafini & Dlodlo, 2014). Employees that are able to integrate their work and family commitments, and other non-work responsibilities and activities are likely to experience increased levels of psychological attachment towards their employer (van Dyk & Coetzee, 2012) and hence, perceive that their organization cares for them.

Supervisor support – refers to the way in which supervisors provide support to employees through recognition and feedback. In hindsight, this is a precursor to retaining staff and enhancing their commitment in the long term (Morrow, 2011).

Research design

The study is cross-sectional in nature and follows a quantitative approach. Descriptive and inferential statistics were employed. Factor analysis was conducted using the pattern matrix of the principal axis factor analyses using Varimax rotation with Kaiser normalization.

a) Measuring instruments

The retention factor measurement scale (RFMS) was utilised (Döckel, 2003). The instrument measured the participants' satisfaction with six retention factors. Meyer and Allen's (1993, 1996) Organizational Commitment Scale (OCS) was used to measure OC. In terms of internal consistency reliability, Meyer et al., (1993) reported alphas for affective commitment (0.82), continuance commitment (0.74) and normative commitment (0.83). All items were presented on a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). Retention factors scored the following Chronbachs Alpha, compensation .939, training and Development .837, supervisor support .702, career advancement .736, work life balance .766. OC achieved an alpha of .861. The study considered 0.70 as an acceptable level for internal consistency (Nunnally & Bernstein, 1994).

b) Sampling and Participants

The staff complement of the organization were approximately 500 call centre agents (from the insurance sector). Non-probability sampling design was selected and a convenience sample utilised. There was a response rate of 282. Sekaran and

Bougie (2013) indicated that the acceptable sample size for a population of 500 is 260. The sample comprised of 66% females and 34% males. With regards to age, 49% were 18 to 24 years, followed by 46% and 12% between 25 to 34 and 35 to 44 respectively. 70% of the participants had a length of service of 1 year or less.

3. Results

The frequency analyses for the possibility of enhancing OC revealed:

- 51.5% of employees agreed that they are employed at their organization out of necessity.
- 41.2% of employees remained in the organization as it would be difficult to find other employment.
- 36.9% believes their organization deserves their loyalty whilst 40.2% remained neutral about their loyalty towards their employer.
- The above is consistent with 55.8% of employees would not feel guilty to leave.
- 52.3% of employees would not want to spend their rest of their careers. This is consistent with 50.6% of employees who indicated that it would be easy for them to leave.

3.1. Independent samples t-test – significant mean differences (gender)

H1: There is a significant difference in OC of male or female call centre agents. An independent-samples t-test was conducted to compare OC for males and females. There was a significant difference in scores for males ($M = 3.00$, $SD = .658$) and females ($M = 2.76$, $SD = .645$); ($t(271) = 2.95$). The magnitude of the differences in the means (mean difference = .25, 95% CI: -0.08 to 0.41) $p = 0.00$ (two tailed) and (eta squared = .368), as a large effect. Hence, hypothesis 1 may be accepted.

1.2. Correlation analysis

H2: There is a significant relationship between the retention factors and OC.

A Pearson product-moment correlation coefficient was computed to assess the relationship between the retention factors and OC. There was a positive correlation for compensation ($r = 0.662$, $n = 273$, $p = 0.000$) and career advancement ($r = 0.559$, $n = 274$, $p = 0.000$). A negative correlation exists for work life balance ($r = -0.503$, $n = 274$, $p = 0.000$). A significant relationship for compensation and career advancement exists between OC. A negative significant relationship exists between work life balance and OC. Hence, hypothesis 2 may be accepted.

3.3. Multiple regression analysis

H3: Retention factors enhances organizational commitment. The total variance in the dependent variable (OC) explained in the model was 51.4% (R square). The ANOVA test also reported a significant value of .000 which shows that there is a significant difference among the mean scores of the dependent variable, because the score is less than .05 (Pallant, 2010). In terms of multicollinearity, the current study yielded tolerance values close to 1.0 (between $\geq .682$ and $\leq .791$) and VIF values of ≤ 1.46 . They are lower than the cut-off of ≥ 2.5 to ≥ 4.0 suggested for small samples; hence,

multicollinearity was not a particular concern. (β) values were interpreted with more confidence. In terms of how retention factors contributed to the prediction of OC. Compensation had the largest (β) coefficient (.398), suggesting that employees value compensation more than the other factors, career advancement (.253) followed by work-life balance (-.181). These retention factors contribute significantly to the variance of OC. Hence, hypothesis 3 may be accepted.

4. Discussion

The suggested theory and findings has practical organizational and HR implications. In response to the potential problems of employee retention and OC, it is likely that call centre organizations should strive towards providing on retention factors that will enhance OC. Employees who display low levels of psychological attachment to the organization will display low levels of loyalty and hence, seek alternative employment. To ensure commitment, call centre organizations need to provide retention initiatives that will ensure OC by providing equitable reward and recognition to employees, providing clear career plans and paths to their agents, and ensuring that call centre agents are able to have successful work-life balance. This study identified that men experience higher levels of commitment. This is consistent with Arbak and Kesken (2005), due to higher salaries and better occupational positions.

Recommendations and conclusion

It is essential for call centres to be equipped with employees who are committed to the organization, and possess a sense of belonging and loyalty. In today's competitive environment, HR practitioners need to be cognisant of the retention factors that may enhance OC, which includes compensation, career advancement and work-life balance. Furthermore, call centres need to take note of gender differences and not let traditional gender stereotyping influence employees' commitment levels. Organizations that have a committed workforce are able to gain in increased revenue, improved bottom lines, and reduced costs (Babakus et al., 2003; Sahi & Mahajan, 2014).

References can be provided upon request.

Mega transport and logistics infrastructure projects in developed and developing countries: the ethics of investment and the cost of failure.

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Abstract

Both developed and developing countries undertake major transport and logistics infrastructure projects in the hope that they will bring significant benefits. When such projects are successful, the general wellbeing of the people is enhanced. However, many infrastructure projects fail and it can also be argued that any monies available, particularly in relation to developing countries, could be better used to address immediate problems such as providing medical aid or famine relief. This research examines the ethics of investment and the cost of failure of such projects using a multiple case study approach based on projects deemed to have failed.

Introduction

There is historical evidence that the success rate for major infrastructure projects is poor both in terms of 'over-run'[1] and benefit shortfalls[2]. Further, developing countries generally have greater difficulties funding such projects, have less capacity to absorb any resulting losses and monies available might arguably be better used to address immediate issues such as providing medical aid or famine relief. This situation is often exacerbated by the over-optimistic claims of project advocates [3] and a belief in some developing countries that any benefits accruing from such projects will not be fairly distributed [4]. A declared aim of many transport mega-projects is to enhance the income and wellbeing of the population by leveraging the opportunities generated by trade, which in turn is facilitated by improved logistics infrastructure. Whilst there is a wealth of published research about income distribution and wealth inequality, there is very little that attempts to link these ideas to the benefits of developing infrastructure such as ports highways. The need to challenge the ethics of the concept is the reason for this research and it forms the main research question. To answer this, the paper will use of the following subsidiary questions as its objectives:

1. What is the probability of infrastructure projects succeeding, improving trade and generating income?
2. If a mega-project succeeds, will the host country benefit from it?
3. If the host country does benefit and derive income, how far down the population will that revenue be cascaded?
4. If there is in doubt about any of these, should developing countries spend limited revenue on infrastructure rather than more immediate needs such as (say) famine relief or medical needs?

Literature review

There are many reasons why a major infrastructure project may not succeed [5]. These include: build failure, build is late; build is over budget; build is complete but does not function correctly; build is complete (& works) but does not deliver expected benefits (within the predicted timescale) and the build is completed on time, but unpredicted external events prevent the realization of expected benefits. This shows that there is no guarantee that any infrastructure project will succeed, further as Osei-Kyei. R. and Chan. A.P.C. (2016) suggest, those in developing regions such as Sub-Saharan Africa have high numbers of failed projects. There is no doubt that the development of an efficient transport system is important to improve the flow of raw materials and goods [6], and that to be efficient, transport needs to be supported by infrastructure that is fit for purpose. It is axiomatic that trade is inescapably linked with logistics [7] [8], so good logistics can enable trade and, conversely, where transport or logistics is weak there will be an adverse impact on it [9]. From this it appears that new investment in ports, railways and roads will generate economic growth through increased trade, a view supported by Bergman and Feser (1999) who suggest that enhanced supply chain nodes can link various strands of regional policy to create economic development, improved business productivity, greater innovation and thus attract new firms to regions. It may be that benefits are more likely to accrue in the case of developed countries, Merk. O. (2010) cites the example of London saying that the growth of high-value added activities related to the maritime domain there has been shown to contribute directly through employment, GDP increase, fiscal revenues and overseas earnings, and indirectly through the multiplier effects of wage spending and increases of demand in the supply chain. Nevertheless, it is essential to note that, whilst infrastructure constraints can prove to be a major setback in the creation of logistics gateways [10] the evidence that new or enhanced infrastructure will yield new trade is by no means overwhelming and there are many examples of infrastructure development policies that have met with mixed success [11]. O.E.C.D. (2002) agrees with this and suggests that there is a lack of understanding of the impact of transport infrastructure on regional development. Although an increase in economic growth may be attributed to improvements in infrastructure, the reverse may also be true [12]. The latter suggests an endogenous relationship where transport infrastructure investment should take place only when the trade generated demand is there [13]. If true, when economic development within a region is

taking place, enhanced infrastructure may give a further boost to a burgeoning regional economy [14], leading to the regular flow of labour to urban areas over time. Conversely, Beckers. F. et al. (2013) cite overambitious demand forecasts as a key factor that can put a mega-infrastructure project at risk. According to Hoyle. B. S. (1973), the approach of building infrastructure in the expectation that trade will use and pay for it, if unfulfilled, can produce an anarchic movement of population, exacerbation of social problems and the further impoverishment of rural communities.

Most countries, regardless of their developmental position, would like to undertake infrastructure mega-projects, but few, if any, emerging nations have the financial capability to do so unaided. Therefore, they are forced to seek help in the form of donor funding or foreign direct investment (FDI). Apart from the problem of acquiring such support, a key issue is the impact that such arrangements may have on the dispersion of any benefits that may accrue. For example, Kimani. M. (2009) states that 'operations in Africa have generated big profits for foreign companies, with little local benefit' and quotes Festus Mogae, the former president of Botswana, as saying that African countries enticed investors by granting incentives such as extensive tax and royalty exemptions, which meant that the earned very little from such contracts. In a similar vein, the BBC (2012) suggest that 'profits from resource exploitation leave the (African) continent entirely in the hands of foreign-owned companies which pay low rates of tax'. Nevertheless, without FDI many development projects would never start and the potential for hidden benefits such as the gaining knowledge and expertise could not be realised. Even here though there are risks for example: Chinese companies have been accused of unfair competition without forging strong links with local firms which has resulted in a lack of transfer of skills and technology [15]. They also suggest that China has been identified (by the World Bank) as the biggest 'land grabber' in the world and in Africa.

Authors such as Calderón. C and Servén. L. (2008) cite Africa's deficient infrastructure as a major obstacle to the reduction of poverty, so if a country is able to generate additional income, surely all of its people must benefit? Empirical evidence and literature suggest that this is often not true for developing countries. For example, as the BBC (2012) states 'there are greater economic inequalities in resource rich countries than elsewhere'. Smith. S.C. (2005), Schmidt. M. (2009), Kamwanyah. N.J. (2014) and Muraranganda. E. (2015) suggest that in developing countries an overall increase in GDP will only benefit a small number of individuals rather than the majority of people. This suggests that any increased revenue is not usually shared equally amongst the population but is likely to be retained by a fortunate, and usually powerful, few. A good way of measuring inequality is by use of the Lorenz curve that shows the proportion of national income earned by any given percentage of the population (measured from the poorest upwards) [16] and the Gini coefficient that measures income inequality

and varies between 0, which reflects complete equality, and 1, which reflects complete inequality [17]. Despite significant investment projects, many developing countries have very high Gini coefficients, e.g. According to Allum. P., Dwight. L. et al. (2008) Namibia has attracted a great deal of inward investment but, whilst it is classified as an upper-middle income country by the World Bank, has a Gini coefficient of 0.639 [18], the highest and therefore most uneven distribution of income recorded at the time of listing. There may be many reasons for this phenomenon but Wiig. A. (1999) and Gyimah-Brempong. K. (2002) claim that, to a significant extent, it is due to corruption. Lambsdorff. J.G. (2007), Freedom House (2012) and GAN Integrity Solutions (2015), show that, in Namibia's case, corruption still persists despite a quarter of a century of independence and stable government. Keshii. N. (2013) and others claim that this effect may be exacerbated by continued single party dominance; this is often the situation in developing countries [19].

Methodology and research work

The research is exploratory in nature and uses a qualitative design, incorporating multiple case studies that have been deliberately selected because they share a common feature [20], namely these megaprojects are deemed to have failed. The selected mega transport and logistics infrastructure projects are located in a range of developing and developed countries to establish the cause(s) and effects of failure on the country concerned. Major issues and themes are identified from a comparative analysis of the case studies [21] and conclusions drawn.

Findings / analysis

As failures can occur in both developed and emerging countries this research examined a number of mega-project as case studies to consider the issues and illustrate the relative impacts of the failure of transport megaprojects on the various economies. The case studies in brief with their salient points:

A. Berlin Brandenburg Airport (BER) - Germany

In 1996 a decision was made to develop Schönefeld Airport with the subsequent closure of Tempelhof and Tegel airports [22] to serve the needs of Berlin compete with other European airports [23]. The initial cost estimate was 1.7 billion euros, but major problems have dogged the airport's construction, although yet to open, the likely cost is expected to exceed 6.5 billion euros [24]. Fiedler and Wendler [25] have shown that a vicious spiral of governance problems together with a lack of expertise and risk assessment have been fundamental to the delays. Germany is a prosperous nation with a total GDP (2015) of US\$3.363 trillion [26], so the cost of eventually developing BER represents only 0.002% of the country's GDP. If the project had been located in a developing country, such cost over-runs would potentially be crippling for the country.

B. 'The Boston Big Dig' – U.S.A.

The Big Dig in Boston, Massachusetts, US, was a massive road infrastructure project undertaken to improve the flow of traffic, alleviate congestion and replace the outdated elevated Central Artery road. Started in 1991, the cost of the project when completed in December 2007 was estimated at \$14.8bn but this was subsequently revised to more than \$24bn in 2012 [27]. The project was 8 years behind schedule when completed [28] and the cost overrun is now believed to be 220% [29]. The project was plagued with mistakes including: blueprints that didn't line up, faulty concrete mixing and a ceiling collapse that killed a car passenger in one of the new tunnels. Project governance was inadequate and cost controls failed to safeguard taxpayers' money, which starved other state projects of funds [30].

C. Coega IDZ – South Africa

The Coega Industrial Development Zone (Coega IDZ), located in the Eastern Cape province of South Africa next to Ngqura port, is a transshipment hub linking the important eastern and western trade routes to Africa [31]. The feasibility study in 1996 that included 80 individual reports estimated that 27,000 jobs would be created during construction, with 13,000 permanent jobs expected to be generated countrywide [32]. The delay in establishing the road and rail hinterland connections together with the cancellation of numerous sub-projects and the global recession from 2008 have marred the progress of the mega-project. To date, Coega IDZ has attracted over US\$4.1 billion in investments that led to the setup of several organisations across the 14 zones [33]. Despite this, the estimated 8% growth from the Coega IDZ development however has not materialised, with a mere 4.8% reported by the 2015 Eastern Cape economy [34], which is largely dependent on the automotive and agro processing industry. Further, that industry has failed to assist with widespread economic reform. The Coega IDZ, designed to attract FDI, has not lived up to its expectations and has fallen victim to the overestimation of its success.

D. Edinburgh Trams – Scotland, UK

By the 1950s, UK tram systems had been closed, but in the 1990s trams had been reintroduced to various cities and proposals for an Edinburgh system were mooted. A detailed proposal made by the City of Edinburgh Council in 1999 detailed a network to run for 15 miles from Edinburgh Airport to Leith by 2011, costing £375 million. The truncated nine mile service eventually opened in 2014 at a cost of £776 million [35]. With interest charges the final bill is likely to be close to £1 billion. Designed to transport 21 million people a year, the system transported 5.3 million passengers in 2015 [36]. The Edinburgh Tram Inquiry, commissioned by Scottish ministers in June 2014, has been set up to establish why the project was delayed, was over-budget and delivered

significantly less than expected [37]. The final report is yet to be produced.

E. Gautrain – South Africa

Gautrain is a high speed railway service that links Johannesburg's economic hub to O R Tambo airport and Tshwane. Its building was announced in 2000 with the aims including: relieving congestion, stimulating development, growing the economy, creating job opportunities and contributing towards Black Economic Empowerment [38]. The project was initially expected to cost R7 billion, but is current estimated to have cost between R26 billion [39] and R30 billion [40]. The railway has been built and works. Nevertheless, it can be considered to be a 'failure' as the project experienced major time and budget overruns, ridership numbers were not met and the expected economic benefits were not realized.

F. JadeWeser Port - Germany

Construction of JadeWeser Port, took 4½ years leading to September 2012. Despite extensive feasibility studies, planning and a massive investment of €950 million [41], as of January 2015 it had failed to attract any scheduled liner calls and was regarded as a 'white elephant' [42]. According to the port manager, the main cause of failure was timing, because the port 'went live' in the wake of the 2008 financial crisis broke and its impact on world trade [43]. As of 2017 it appears to be recovering and volumes suggest that it has survived its disastrous initial period and may eventually succeed. Probably because it is in Germany it was able to weather the initial heavy losses around 40 million euros for both 2013 and 2014 [44]. Had it been located in a developing country it seems less likely that the project could have survived.

G. King Shaka International Airport (KSIA) – South Africa

KSIA was built to replace the existing Durban International Airport Durban opened in May 2010. Plans to move the airport to the new site were proposed and shelved on numerous occasions in the 1970s/80s [45]. In the 1990s, the plan was reprioritized and was overhauled to include a trade port [46]. The older airport served the domestic market, but the runway was considered too short and there were low international passenger numbers. The new airport was built, lengthening the runway from 2.4 to 3.7 km, expanding the passenger capacity from 4.4 to 7.5 million and the passenger terminal building floor area from 30 000m² to 102 000m² [47]. Since the opening of KSIA, it has become evident that the build was not justified, as the previous airport had been upgraded at a cost of R158 million in 2005 [48] and international passenger numbers have not materialised.

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Variance Assessment in Growth Rates

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ABSTRACT

The paper investigates volatility in growth rate of Pakistan's economy, along with its major trading partners in Asia; India and Japan and including USA as benchmark economy. The volatility has been measured using GARCH(1,1) model, the standardized residuals were not normally distributed. Then a two state Markov switching model is estimated to capture the structural break in the variance of growth rate of the four economies. The variance plots of switching regimes largely coincided with conditional variance plots of the GARCH models.

INTRODUCTION

For Pakistan, trade represents a substantial share of gross domestic product. The trading magnitude and variance is highly dependent on rate of economic growth in Pakistan. The average growth rate of an economy can be emphasized on the economic growth rates or growth in GDP per Capita, the growth rate deviates from its mean depends upon aggregate investment and capital accumulation contributing towards economic growth. Discussing the growth rates among the emerging markets, there are other reasons that lead to structural volatility due to under efficient performance of economic and financial institutions. High volatility in GDP, is also associated to a high budget deficit, under-developed financial institutions hence making economy more sensitive to international capital market fluctuations. Similarly, the volatility of per capita GDP impacted due to liquidity issues in financial markets and limited credit creation. Therefore, high deviation in business cycle is dependent on overall financial stability taking into account the impact national debt level, saving generation level and financial instrument operation etc.

One of the major trading partners of Pakistan in Asia are India and Japan, where India is classified as newly industrialized economy and Japan is termed as developed economy. The US growth rate is also taken into account as the benchmark economy to assess overall variance fluctuation in GDP. The fluctuation in US

growth rate is transmitted to other economies based on their level of dependence, the paper estimates growth rate volatility among Pakistan and its trading partners using GARCH model and then contrasted the results by using a two state Markov switching model is used to

capture the shifts. Over the time, industrialization, globalization, improved technology, multinational operations including out-sourcing plays an important role in global trade.

The objective of this study is to evaluate variance in the growth rate of Pakistan with relation to its major trading partners. The rest of the paper is organized such that section 2 presents the econometric methodology and data followed by discussion of results in section 3. The conclusion is presented in section 5.

MODEL SPECIFICATION

The model is estimated using the maximum likelihood method and the likelihood function is constructed following [13]. The specification of most commonly used models to evaluate overall volatility or heteroscedasticity is the GARCH model introduced by [5] and then [2] it was further analyzed by [3]. Later, Hamilton and Susmel (1994) introduced Markov Switching Autoregressive conditional heteroscedasticity model (SWARCH) that allowed ARCH process parameter to come from one of the several different regimes. This study confirmed that ARCH effects eventually die out, the simplified version is given as;

$$y_t = \sigma_{S_t} u_t$$

$$u_t = h_t v_t$$

$v_t \sim i.i.d. \text{ with Student } t \text{ Distribution}$

$$h_t = \alpha_0 + \alpha_1 u_{t-1}^2 + \alpha_2 u_{t-2}^2 + \beta d_{t-1} u_{t-1}^2$$

Where σ_{S_t} captures Markov switching variances and the d_{t-1} is the dummy variable to capture the leverage effects. In the above specification, ARCH (2) process is used in the model within a given volatility regime. When the ARCH effect dies out, this suggests heteroscedasticity in GDP growth rate can be modelled by enforcing Markov switching variance model. Therefore, we considered a two state Markov switching model:

$$y_t \sim N(0, \sigma_t^2)$$

$$\sigma_t^2 = \sigma_1^2 S_{1t} + \sigma_2^2 S_{2t}$$

$$S_{kt} = \begin{cases} 1 & \text{if } S_t = k \ (k=1,2) \\ 0 & \text{otherwise} \end{cases}$$

$$\Pr(S_t = j | S_{t-1} = i) = p_{ij}, \ i, j = 1, 2$$

$$\sum_{j=1}^2 p_{ij} = 1$$

$$\sigma_2^2 > \sigma_1^2$$

Where \mathcal{Y}_t is the quarterly growth rate in the output level, S_t is an unobserved state variable that progresses based on first order Markov process with transition probabilities given in equation. The dynamic forces in long run are administered through changes in unconditional variance of different regimes based on a first order Markov switching process. The variance of the growth rate in GDP may then be computed as,

$$E(\sigma_t^2 | (\hat{\mathcal{Y}})_T) = (\hat{\sigma})_1^2 E(S_t = 1 | (\hat{\mathcal{Y}})_T) + (\hat{\sigma})_2^2 E(S_t | (\hat{\mathcal{Y}})_T)$$

Where, $(\hat{\sigma})_1^2$ is the estimate of volatility in state 1, $(\hat{\sigma})_2^2$ is the estimate of volatility in state 2.

DISCUSSION OF RESULTS

The results of GARCH model estimation indicate that the AR order of mean equation for Pakistan and Japan is one, while the order for USA is three. Both coefficients of ARCH (0.3285) and GARCH (0.7065) effect for Pakistan are statistically significant. Similarly, ARCH and GARCH terms are also significant for USA and Japan. Taking an overall view of GARCH coefficient in all four economies, observed relatively similar estimates and significant. Whereas, the ARCH term in Pakistan is quite discrepant with a larger estimate likewise Japans' GARCH term estimate is relatively smaller than other economies. Moreover, the sum of α_1 and β_1 indicates persistence of volatility of 0.9838 for USA and India respectively, versus almost 1.0 for Pakistan. Reviewing the economy, is 0.8574 for Japan, while 0.9732 analysis provided by [6] about non-linear time series, the existence of highest volatility in overall output growth level is in Pakistan, USA and India in term of persistence of volatility is relatively high, but it is relatively low in Japan.

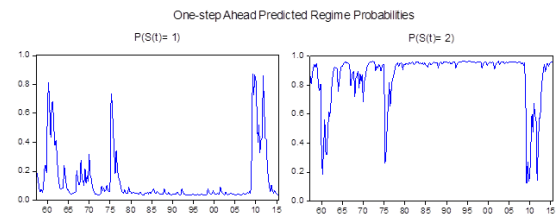
The results of Markov switching heteroscedasticity show (Table4) the propensity to remain in the low variance state p22, as 0.9911 for Pakistan, 0.97489 for USA, 0.9940 and 0.8751 for India and Japan respectively. Similarly, the probability p11 is estimated as 0.9960, 0.9634, 0.9780, and 0.9802 for Pakistan, USA, Indian, and Japan respectively. Moving towards the variance in low volatility state denoted by σ_2 , and is estimated at 4.554 for Pakistan, 1.654 for USA, 4.817 and 3.229 for India and Japan respectively. Likewise, the variance of high volatility state is 15.65 for Pakistan, 3.69 for

USA, 8.185 and 6.878 for India and Japan respectively.

Table 4: Real GDP growth rate: Markov Switching Heteroscedasticity Model estimation

	Pakistan	US	India	Japan
σ_1^2	15.651 (0.82542)	3.692348* (0.451562)	8.18513 4* (0.93273 5)	6.877717* (1.43580)
σ_2^2		1.654349* (0.131418)	4.816646 (0.30515)	3.228977* (0.23889)
P_{11}		0.9634823 (0.004)	0.978002 (0.01977)	0.9802704 (0.01592)
P_{22}		0.974889* (0.013)	0.993964 (0.00640)	0.8751064 (0.09447)

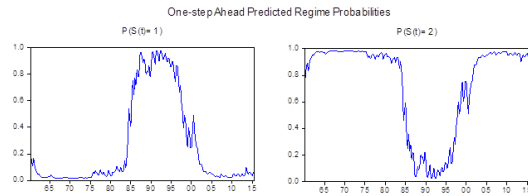
Interestingly, the variances in high volatility state in Pakistan, USA, India and Japan are more than three times, over two times, nearly one and half times and two times higher than the variances in low volatility state, respectively. Thus the break in variance of GDP growth rate has been quantified in these economies, similar way as discussed by Kim, Nelson, and Piger (2001). The standardized residual was attained based on GARCH model methodology, therefore proceeded towards the Markov switching variance model. As shown in following figures these results validate the structural break in variance; and confirmed significant structural break in variance of the GDP for Pakistan and India. There also persists break in variance of GDP growth for USA and Japan; Evaluating the case of Pakistan, during the period of 1960s and 1970s low variance period is evident, on other hand high variance period largely continued afterwards. Pakistan high variance continued for a longtime due to interchanging governments, lack of synchronization among economic policies, further long term policies were not emphasized. Whereas, taking into account the Indian economy who largely remained in low variance region before 1980s and then again moved to low variance period since late 2000s.



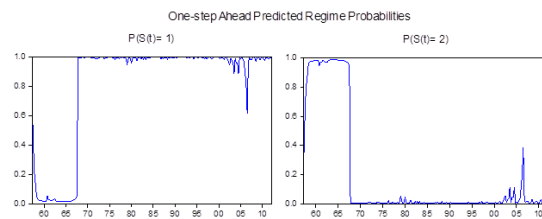
Economic policies were coherent, GDP continued to grow at a steady pace; but between 1980s and 2000s the economy undergone a high variance period that was largely due to gradual liberalization of the international markets. Faulty economic policies and structural problem continued during this phase, till macroeconomic reforms introduced in 1990s played a long term role in diverting economy back to low

variance period by the next decade.

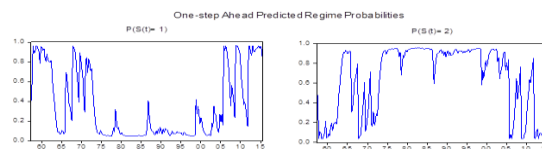
The USA economy was going through high variance period during 1960s, 1970s and 2005 onwards the volatility in the growth rate is still high. The main reasons that contributed towards high variance were the monetary recession occurred when FED started to increase the interest rates, due to fiscal tightening as well as contracting monetary policies. Then, 2005



onwards USA growth rate was again in high variance region due to the global recession that severely impacted the US and other major economies. Japan also went to a high variance period, mainly during 1960s, mid 1970s and 2010; and entered into recessionary period due to the oil price shocks, financial liberalization phase and



Japanese asset price bubble. During 1980s the Japanese economy was not able to connect with financial liberalization of international equity markets,



then in early 1990s Japanese stock market bubbles collapsed triggering the economy to depression. The 1991 to 2000 period is termed as the lost decade. Furthermore, Japan and India were in low variance period since 2007 while USA and Pakistan were generally in high variance region for the same period.

CONCLUSION

The research paper empirically identified the structural break in the variance of growth rate of GDP for the economies; USA, Pakistan, India and Japan. The study investigated volatility in the GDP process using GARCH model; then GARCH (1,1) estimates enabled to plot the conditional variances, and performed residual diagnostic tests. The standardized residuals were not normally distributed that led to assessment of structural break through Markov switching variance model. Further, the ARCH effects were mostly absent in the GARCH

model estimates as well as in the switching model. A state-dependent process has been modeled to monitor the volatility in the output growth levels, therefore using a two state Markov switching model is used to capture the shifts. The variance plots of switching regimes largely coincided with conditional variance plots of the GARCH models.

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India's Technology Initiatives: Impact on Economy and Business

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ABSTRACT

Since May 2014 when prime minister (PM) Narendra Modi took office, the Government of India has announced several initiatives to boost economic growth and transform society in India. The major initiatives include Make in India, and Startup India. Modi's vision for Digital India is to transform India into a digital economy. Would Modi's faith in the power of technology to lift millions of people out of poverty translate into achievements? This paper addresses that vital question by analyzing the impact of the technologies on India's economy and businesses, in particular, on its manufacturing and service sectors and economy-wide productivity.

IMPACT ON MANUFACTURING SECTOR

The "Make-in-India," initiative aims at making manufacturing an engine of growth in India. The idea is not new as a model for economic growth in India or in other developing countries. Surplus labor will be moved "from farms to factories" to be absorbed into the more productive and expanding manufacturing sector which will become the engine for growth and creating jobs. This has worked well in the case of Japan, Taiwan, and S. Korea, but in India, manufacturing has not been a major factor in terms of output or jobs. Manufacturing's share in GDP grew only to about 15% in 2011 from about 9% in 1950 while share of services in GDP doubled from 30% to 60%. In the case of East Asian Tiger economies, the share at which manufacturing peaked was at about a third of the output but in India it reached its peak of 17% of GDP at the GDP per capita of \$3,300 (adjusted for purchasing power parity) [5]. For South Korea and Indonesia, it was at GDP per capita of \$10,000 and \$6,000 respectively. In fact, the same phenomenon, labeled as premature deindustrialization by Dasgupta and Singh [2], Dani Rodrik [12] or non-industrialization by Arvind Subramanian, current economic advisor to the government of India [1], has been observed in other emerging economies such as Nigeria and South Africa as well, where share of output and employment in manufacturing is peaking at lower and lower per capita income levels [13].

The number of jobs in manufacturing in India increased from 37 million to 53 million during 1993-2013 at average rate of 1.8% while the jobs in the service sector increased from about 80 million to about 150 million at the average rate of about 6.5%. Indian manufacturing's export performance has been quite feeble with its share of global merchandise exports increasing from 0.5% in 1993 to 1.7% in 2013 while during the same period China's share went up from 2.5% to 11.5%. The reasons for this lackluster performance of India's manufacturing sector are varied, ranging from poor infrastructure, to acquisition of land for industrial development, to prevailing labor laws. Will Make in India help turn this around for India and realize the vision of Modi?

The brief answer is, not likely, due to two major developments of the last two decades. One is technological. Because of connectivity enabled by the internet, integration of all business activities within the enterprise and in the supply chain in manufacturing as well as in services is now possible. Manufacturing is being transformed by the use of new materials such as composites and carbon fiber. Digitization of manufacturing has launched a third industrial revolution by creating a new method of manufacturing i.e., additive manufacturing also known as 3-D printing [4]. The other major development is economic and political i.e., globalization. They have changed the rules of the game of economic development. Developed countries have been able to access, through the platform provided by the internet, skilled and low cost labor in developing countries. Production value chains have been split apart, with labor intensive, low value adding production moving to low wage locations. China has been the major beneficiary of this migration of labor intensive manufacturing. Since the 1990s, it has been able to build complete supply chains, improve manufacturing productivity and move up to higher value adding production. Helped by a benign export environment when global trade was growing much faster than global output, China, by the sheer scale and size of its manufacturing sector, has erected a considerable barrier to exports from other developing countries.

In contrast, manufacturing in India presents a paradox, despite labor being very cheap (relative to international standards) and abundant, Indian manufacturing is actually capital intensive [10]. With falling cost of technologies such as robotics, there is an incentive for Indian manufacturers to introduce automation and many are actually doing so. Technology and automation can be labor displacing or labor augmenting. Employing labor displacing technologies in manufacturing can improve labor productivity at the expense of jobs. This by itself is not a bad thing, if that sector is expanding. But recent evidence suggests that the potential for doing so is getting diminished as manufacturing in India is losing out to imports from China [4]. India's manufacturing sector does not have a good record with regard to productivity growth. According to studies that consider services as an input along with capital, labor, materials and energy (KLEMS) to estimate total factor productivity (TFP) growth in Indian manufacturing, there has been no improvement in the rate of TFP growth in Indian manufacturing in the post-reform period compared to the growth rate achieved in the 1980s. Rather, TFP growth rate in manufacturing has slowed from 1.88 per cent per annum during 1980 to 1991 to 1.05 per cent per annum during 1992 to 2007 [11].

The labor augmenting kind of automation creates demand mostly for skilled labor. This can help Indian manufacturers compete in the world market if they follow the model of German Mittelstand firms as

producers of niche, customized, technology and skill intensive products [6]. But the impact on jobs will be minimal as these activities generate jobs only for the highly skilled. India needs to generate about 12 million jobs every year just to keep up with the number who enter the workforce every year. However, the near term outlook for increasing exports via this route does not appear promising because of the slowdown in global trade [4]. Moreover, the global competitiveness of India's manufacturing has declined in recent years. It was ranked 11th in Deloitte's 2016 Global Manufacturing Competitiveness Index ranking, down from 4th in 2013 [3].

IMPACT ON SERVICE SECTOR

On the services side, India has benefited greatly by the advances in information and communications technologies (ICT) through outsourcing and offshoring of information processing activities from developed countries. For a while, the international division of labor in manufacturing and services was based on the logic "if you want cheap hands go to China and if you are looking for cheap brains go to India." This trend has been a major contributor to the growth of jobs, exports in the form of IT services and the development of a world-class IT and BPO industry in India. However, that well is drying up. Indian IT services industry has matured and the low wage advantage is disappearing. Competition has also increased as countries such as Philippines have built call centers. Companies in the West have already outsourced back office work that are considered routine and have pulled back especially after the great recession of 2008-2010. The more complex and higher value-adding work is being performed in home countries. Therefore, it is going to take a different kind of firm to sustain the growth of the IT sector. The growth has to come from e-commerce and m-commerce firms such as Flipkart and technology startups. The new internet-based firms in India are still small and few in number. Therefore, these firms are not generating many jobs.

IMPACT ON PRODUCTIVITY AND JOBS

There are ways in which the new technologies can make a positive impact on the Indian economy. It is through the improvement of productivity economy-wide by applying technology to solve problems faced by ordinary citizens. It has been estimated that the mobile phone has contributed as much as one percent to GDP growth of some African countries. Healthcare and education are already being transformed through m-health and online learning technologies. Closing the digital divide in the country, providing connectivity and internet access country-wide at higher bandwidth will decrease search and transaction costs and in the long run increase productivity. Technologies such as smart phones, through their ability to collect, process and store vast amounts of data (Big Data) now allows the application of the basic principle that information - whose acquisition, storage and communication costs have declined dramatically - can substitute for physical resources and minimize the cost of movement of goods and funds. Amazon was one of the first firms to turn this principle into a business model by creating a virtual inventory of books. Ownership of resources becomes less important than accurate information about, and access to, those resources. It underlies the growth of the sharing economy - exemplified by Uber and Airbnb - in which demand and

supply can be more accurately matched and spare capacity in the economy can be put to use.

There are many low hanging fruits such as e-government where ICTs can be used to improve delivery of public services and governance, increase inclusion and efficiency and promote innovation. These are some of the goals of Digital India initiative. However, realizing increases in productivity from the digital economy envisioned in Digital India requires supporting policies and complementary investments. A fortuitous complementary investment was Aadhaar, digital unique identification card. According to the World Bank, Indian government can save about \$1 billion annually by thwarting corruption. Such savings are possible due to Aadhaar's 'uniqueness efficiency' in the delivery of: subsidies for food, fuel, and fertilizer; Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) wages, pensions, scholarships and other government benefits, which it achieves by curbing leakages in benefits disbursement. Direct transfer to the beneficiaries removes the middle layers where most inefficiencies lie. Even after taking all costs into account and making modest assumptions about leakages of about 7-12 percent of the value of transfer/subsidy, a detailed cost-analysis study on Aadhaar found that the Aadhaar project would yield an internal rate of return of 52.85% in real terms to the government. As of March 10, 2016, Aadhaar numbers issued were close to 990 million.

There are dark sides to the digital and connected world such as threats to individual privacy and cyber security. But foremost is economic, due to the labor displacing aspect of these new technologies. They have already disrupted and will continue to disrupt the labor markets in a serious way. What was true of manufacturing jobs now applies to service jobs as well. A study by academics Frey and Osborne estimated that about 47% of the white collar jobs including research and accountancy are at a high risk of being automated [7]. A recent study by McKinsey Global Institute - which analyzes the impact of automation, adapting currently demonstrated technologies, on 46 countries - indicates that automation has the potential to impact about 200 million employees in India.

Techno-optimists Brynjolfsson and McAfee argue that economies will work through these dislocations - though it is likely to be a lengthy period of adjustment - and ultimately everyone will benefit because the new technologies are capable of delivering the benefits in an exponential fashion [9]. But, Professor Robert Gordon's analysis of sources of productivity growth in the U.S., casts doubts on the power of information and communications technologies to deliver high productivity growth [8]. In his path-breaking quantitative and qualitative analyses, he has divided 1870-2014 in the U.S. into three periods: 1870-1920; 1920-70; and 1970-2014. Growth rate of total factor productivity (TFP), which is the best measure of the effect of innovation and technological change, during 1920-70 was around 1.8 percent, more than double the growth rates during 1870-1920 and 1970-2014 which were approximately 0.49 and 0.70 percent respectively. This lends support to his thesis that certain innovations are more important than others. Gordon points out that innovations during 1920-70 that were associated with electricity, internal combustion

engine, sanitation, health and working conditions affected more dimensions of people's lives than the innovations associated with information technologies during 1970-2014, which focused more narrowly on entertainment, communication and processing of information.

Investments in creating a digital economy may not be as productive in increasing economic growth relative to investments in the real economy. This insight is being lost, for sure, in the current hype about digitization in India, as illustrated in the following. The designs for Amaravati, the new state capital of Andhra Pradesh which aim at creating a 'smart city' with fiber optic connectivity, ignore the fact that its foundations are being built over natural drains. This will increase the risk of flooding from the nearby river and rains. It would have been smart to learn that lesson from the experience of floods in 2015 which devastated Chennai, a city of over 10 million people. In Chennai, over the years, paving over with concrete has reduced the wetlands from around 600 to 27. In another instance, to quote columnist Tavleen Singh, "the district collector of Malappuram in Kerala declared Nedumkayam as India's 'first cashless tribal village' by transferring Rs. 5 digitally into the accounts of 27 people. This was technically enabled by providing WiFi facilities that later turned out to be ephemeral. This 'digital' dream village has neither water nor toilets. This is true of many of our 6,00,000 villages, so making Swachh Bharat ("Clean India") a reality is a huge challenge"

CONCLUSION

Prime minister Modi's government is making big bets on digital technologies to deliver higher economic growth. They have to put in place clear, supporting policies and make complementary investments in education and infrastructure. Moreover, policy makers have to recognize that the brick and mortar economy is still as important - if not more - as the digital economy.

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Private sector development for poverty alleviation in Africa: a review on selected countries

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Key words: Entrepreneurship, poverty alleviation, small business ventures, finance, business environment, private sector.

ABSTRACT

In September 2015, African Governments, along with other, international governments, agreed on the necessity of working towards a number of initiatives called the “sustainable development goals” that aim to alleviate poverty in its various forms in the coming years. They agreed to end poverty, protect the planet and ensure prosperity for all as part of a new sustainable development agenda. It was further agreed that each goal would be achieved over the next 15 years. The primary goal of this initiative is to end poverty. According to the United Nations study, 836 million people still live in extreme poverty and at least one of five persons in developing countries lives on less than 1.25 US dollars per day. Further, the United Nations reported that high rates of poverty are found mainly in small, fragile and conflict-affected countries. Private sector development can play a positive role in the context of the African economies that are characterized by high rates of unemployment and poverty. However, in order to be successfully implemented, it will require governments to comply with certain essentials, such as: easy access to finance, a stable entrepreneurial and business environment, and effective government support towards small business initiatives. Findings of the study suggest that African governments should make more adjustments in macro and micro economic policy in order to stimulate entrepreneurship. The arguments here are based on a literature review.

INTRODUCTION

Literature is in support of the argument that entrepreneurship and small business development play a positive role in economic development (Abor & Quartey, 2010). Worldwide, it is commonly agreed that small business development can lead to the creation of jobs and also ensure that there is an equitable distribution of wealth within a country. According to the Organisation for Economic Development (OECD), it is estimated that entrepreneurship and small business development represents towards 90% of private business and contribute to more than 50% of employment of GDP in the majority of the African economies. Poverty in its various forms remains a critical challenge facing African

countries for the past decades. Recent World Banks survey indicates that the rate of extreme poverty fell from 56 in the 1990s to 43% in 2012. Much more decline would be expected in a 20 year period given the investments into this sector the governments purport to

have made. Despite this decline, an estimated 63 million more people live in extreme poverty today than in the 1990s. These findings shows that despite the progress made to alleviate poverty in Africa, challenges remain constant. (<http://www.worldbank.org/>). It is with this background in mind that this study aims to find out the role entrepreneurship can play in poverty alleviation. It will also try to establish what constrains entrepreneurship not to optimally contribute to poverty alleviation / economic development in Africa in contrast to its contribution in other economies.

METHODOLOGY

The study was conceptual and wholly based on literature. It focused on how entrepreneurship can contribute to the economic development of the African continent. The article assumes that poverty alleviation can be addressed through economic development. From prior literature reviews, access to finance and infrastructure development were identified as key elements of development and selected for analysis. A wide range of literature on entrepreneurship and economics from journal articles and books was consulted. Searches for the literature included Google Scholar, EBSCOHost, SABINET, ProQuest, and Emerald. The word- phrases used in the searches, included, African entrepreneurship, poverty alleviation, infrastructural development and access to finance in Africa. Country economic reports for the selected countries were also sort. It is from the country reports mainly, that the economic development of the select countries was compiled from.

ENTREPRENEURS' ACCESS TO FINANCE

Much of the literature indicates that an improvement in the financial systems lead to an improvement in financial resource allocation and hence economic growth. Without an easy access to finance, SMEs may not survive or reach their maturity stage. Bakhas (2009) listed the following constraints for SMEs accessing finance namely; stringent lending criteria of financial institutions, information asymmetry, excessive transactional costs, discrimination, lack of collateral and own capital distribution, lack of management and business skills, lack of investment readiness, poorly developed business plans lack of mentoring and assistance and lack of government support. Specific countries are chosen for analysis, starting of with South Africa, which is one of the most developed economy on the continent.

South Africa

South Africa has developed an efficient financial sector in order to support small business initiatives. Some of the institutions include the following namely; SEFA (Small

Enterprise Finance, Agency), Development Bank of Southern Africa, the national empowerment fund, Business partners. Cant and Wiid (2013) indicated that despite the availability of financial support from government and the private sector, SMEs are still struggling to access finance. According to Mba and Emeti (2014), one of the reason of poor success rate of SMEs initiative cannot only be attributed to the lack of access to finance but also to the high level of incompetence in financial management. In addition, the authors indicated that although SMEs have access to finance, the lack of required skills in managing the resources negatively impacted on decision-making.

Cameroon

The financial sector in Cameroon is also still underdeveloped with banks mainly located in urban centers. It is a bank-centered system made of a few commercial banks with services that are mainly limited to short-term lending, which account for about 87.5% of all credit to the economy in 1995. This situation has hardly changed in 2016. Furthermore, high borrowing interest rate cap on loans as well as insufficient credit worthiness of clients constitute a major challenge for borrowers. In addition, there is no significant development of other financial lending institutions available for potential borrowers (Akinboade & Kinfack, 2014)

Nigeria

Nigeria, is the second largest economy in the continent.

The Nigerian's banking system is currently dominated by 6 out of 20 banks. These 6 banks account for about 60% of the total banking sector assets. The International Monetary Fund 2013 report indicated that access to finance remains a critical issue for Nigerian entrepreneurs. Although some adjustments were made over the past years, the microfinance sector remains characterised by numerous small, financially weak and ineffective institutions. According Okafor and Onebunne (2012), Nigerians entrepreneurs usually access financing through personal savings, loans and grants from relatives or various business associates. The fund is made available through equity participation and venture capital participation.

BUSINESS ENVIRONMENT IN AFRICA

Previous researches relating to the environment required for successful entrepreneurship and small business development suggested that governments need to provide an effective support system to the private sector for its growth. This support can be achieved by providing more accommodative rules and regulations in the sector through tax benefits, other incentives and the necessary training and counselling in order to boost the capabilities of start-up entrepreneurs. A study conducted by Djankov, Porta, de-Silanes & Shleifer (2000) using a sample of 75

countries reported that the official costs required in setting up new firms entails fees worth at best 1.4 % of the GDP per capita of Canada and at worst 260% of GDP in Bolivia. In addition, the authors also highlighted the fact the process of registering a business was 2 steps and 2 days in Canada while it requires 20 procedures and 82 days in Bolivia.

CONCLUSION AND RECOMMENDATIONS

Africa is experiencing unprecedented economic growth with some countries recording double digit economic growth rates and this is due to both the private and public sector contributions. Although Africa is a big market of two billion people, big challenges still exist to meet its demands due to a number of problems. As pointed out by the UNDP (2014), New Partnership for Africa's Development (NEPAD) (2013), Ramachandran, Gelb and Shah (2009) and many other multilateral agencies, development on Africa has not really taken off. This is due to a number of factors, the major ones being infrastructure gap (especially unreliable electricity and crumbling roads).which has dramatically limited national, regional and international trade. The other major reason is the poor investment and business climate. As pointed out in many of the African Development Bank Reports (2013) and other multilateral agencies, there are many obstacles such as, tariff and non-tariff trade barriers, restrictive regulatory policies, severe skills shortages and un-affordable finance regime that the private sector faces on the continent. This inhibits the development of the private sector, a sector which formalises employment and in turn contributes to poverty alleviation. The study has shown that Africa lags behind economically due to lack of entrepreneurship support in mainly two areas that were analysed; lack of access to finance by entrepreneurs as well as an inhibiting business environment created by the respective governments. It is only when this is addressed that substantive economic development can take place and poverty can be reduced. Positive signs of this can be discerned in some of the countries reported on. However, the biggest draw- back is the infrastructural back log which on the other hand is a massive business opportunity awaiting exploitation.

References available upon request.

SME support institutions: the South African case

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ABSTRACT

The aim of the research is to provide an overview and analysis of prominent institutions supporting SME growth in South Africa. This is a qualitative study using a targeted internet and literature search by comprehensively reviewing SME support institutions. Data were analyzed by means of a documentary and thematic analysis. 15 Prominent SME support institutions were discovered - split equally between public and private institutions. Services offered took the form of financial and non-financial support. Financial support included grants, loans, equity investment and guarantees. Non-financial support predominantly includes items such as networking opportunities, incubation, mentorship and advisory services.

INTRODUCTION

Small and Medium-sized Enterprises (SMEs) plays a significant role in the South African economy. SMEs are drivers of innovation and growth; as well as provide opportunities for business and survival for individuals in the mainstream economy [15]. Yet South Africa has a very low level of Total early-stage entrepreneurial activity (TEA), with levels far below those of other economies in Sub-Saharan Africa [8]. This finding is particularly concerning as South Africa is faced with an economic reality of slow economic growth, high rates of joblessness and slow rates of social transformation [18]. The South African government is cognizant of this reality and in the National Development Plan (NDP), the creation of 11 million small businesses by 2030 is envisaged. This however can only be made possible when an annual growth rate of 20% is achieved and 49,000 high-growth SMEs are created annually [12]. To achieve these rates of growth and new venture creation, SMEs will require targeted support interventions from both public and private sources. A large proportion of South African SMEs fail in their first few years of operation [13]. SMEs therefore are in need of tailored support programmes [9] [14]. Both public and private institutions play a vital role in furthering "SMEs programs, incentives, policies and instruments which nurtures and support small firms" [12, p 17].

PROBLEM STATEMENT

South Africa is currently experiencing significant socio-economic problems - form of high levels of joblessness, weak economic growth rates to stubbornly high levels of poverty. While the creation of Small and

Medium-sized enterprises (SMEs) has been widely touted as one solution to the economic problems

South Africa faces, only a small number of SMEs are created on an annual basis. Compounding this problem is that many SMEs do not survive initial years of operation. A number of studies have attempted to identify reasons for this observation and have found that reasons can be of an economic, administrative, operational or supportive nature. Support for SMEs has been widely acknowledged as a key factor in driving the creation and survival of SMEs. While economic and administrative (red-tape) reasons are receiving the attention of the South African government, a number of public and private-sector institutions have taken it onto themselves to support the creation and growth of SMEs. It is therefore important to determine who these support institutions are, what services are provide, if any overlap between service provisions exists and to determine from which sector (public/private) these support institutions tend to originate from.

LITERATURE REVIEW

Several key indices show that the environment that SMEs compete and operate in is not supportive of a growing SME sector. In 2016, households have come under increased pressure due to rising living costs, high levels of indebtedness, rising levels of unemployment and a deteriorating credit profile. This has had an adverse impact on household spending and indirectly negatively impacted economic growth [7]. Compounding this problem is a slow economic growth rate, with GDP growth rates slowing to 0.9% in 2016, down from 1.3% in 2015 and 1.5% in 2014 [7][16]. The negative effects of slow economic growth rates can be witnessed in prevailing levels of joblessness - the unemployment rate has deteriorated from 25.5% in 2015 to 27.1% in 2016. When the expanded definition of unemployment is taken into consideration (including disgruntled job seekers), unemployment levels have deteriorated from 34.4% in 2015 to 36.3% in 2016 [17]. While an improved inflation rate of 4.6% in 2015 provided some relief to South African households, this was upset by increasing repo and prime overdraft rates, as well as a sharp deterioration of the value of the Rand, which dropped 34.3% in value in 2015/16.

The 2015/16 Global Entrepreneurship Monitor (GEM) report showed that South Africa had the lowest level of Entrepreneurial Employee Activity (EEA) on the African continent, at a level of 0.3%. Also, while the Total Early Stage Entrepreneurial Activity (TEA) in South Africa improved from 7.0% to 9.2% in 2014 and 2015 respectively, this TEA level is amongst the lowest level found in Sub-

Saharan African countries [8]. It is estimated that SMEs contribute between 52-60% towards South Africa's Gross Domestic Product, aggregate 61% of all employment and comprise of 91% of all formal business enterprises [1][4]. It is estimated that 36% of all corporate taxes are paid by SMEs in South Africa, approximately R1.3billion in the 2013 tax year [5]. These statistics indicate that SMEs hold a pivotal position in South Africa's economy. It is therefore especially concerning that South Africa is still experiencing high rates of SME failure [5]. In particular, SMEs experience high failure rates in the first three years of operation, estimates indicating a 70-90% failure rate within the first 42 months of operation [2][6][24, p13].

While the economic challenges affect all SMEs, some internal challenges also present themselves - lack of entrepreneurial skills, inaccurate forecasting and a lack of managerial skills [13]. A lack of skills in the internal human resource domain is compounded by a strong need for managerial and entrepreneurial skills training, in particular with reference to "financial management skills, marketing skills, strategic planning skills, human resource management skills, networking skills and organising skills" [3, p12]. In particular, a lack of financial literacy and poor business planning has adversely affected the ability of SMEs and SME owners to operate in an efficient and effective manner [10]. SMEs are also further prejudiced by lack of accessibility to formal sources of finance, such as bank loans, grants, bridging finance and other credit facilities [11]. Lenders and financial institutions tend to focus on market segments other than SMEs, mainly due to inherent risk levels in the SME sector and lower levels of profitability [19]. A lack of supporting government policies and frameworks are also highlighted by other authors [8]. The study focused on prominent SME support institutions in the South African context. While a wide range of business support institutions exist, only a limited number specialize in the support of Small-to Medium-sized enterprises. For inclusion in the study, the relevant institutions need to have made specific reference to support of SMEs. The support can take any form, such as financial support, advisory, mentoring services or provision of facilities. For relevance purposes the institutions would need to be based and operate in South Africa, with specific reference to support of South African (local) SMEs.

RESEARCH METHODOLOGY

The study followed a qualitative research approach. Data were gathered by means of a targeted desk search of prominent SME support institutions. Prominent academic literature and internet sources were consulted for purposes of data collection. Data analysis was conducted by means of a thematic and documentary analysis.

FINDINGS

15 Prominent support institutions were discovered that provided services ranging from advisory services, to mentorship, to pure financial support such as start-up and growth funding. While some institutions provide purely financial support,

others provide only-non financial support, while the remainder provides a combination of both financial and non-financial support. It is noteworthy that in recent years a consolidation effort has taken place in terms of public institutions supporting SMEs, for example where agencies such as the Small Enterprise Finance Agency were formed out of several other institutions, such as Khula Enterprise Finance, the South African Micro Apex Fund and the small business division of the Industrial Development Corporation (IDC). From the analysis it was found that 53% of prominent SME support institutions come from the public sector. The remainder are privately owned. Thus there is a fairly equal numerical split between public and private support institutions. It is however important to note that public institutions tend to service a far greater number of SMEs than their privately-owned counterparts.

From a support point of view, only 27% of discovered SME support institutions provide pure financial support. This tends to take one of four forms, namely grants, traditional loans, equity investments and financial guarantees. 33% of discovered institutions provide purely non-financial support. This support most commonly comes in the form of mentorship and advisory services. Other forms of non-financial support come in the form of incubation services, provision of access to technology and knowledge, as well as networking services, most commonly with other entrepreneurs, potential funders or subject-matter experts.

It is noteworthy that while the majority of SME support institutions provide services to all SMEs, a number of these have a more clearly defined target. Four institutions aim to provide support to previously disadvantaged and African SMEs, with the aim of redressing inequalities brought on by Apartheid. The National Youth Development Agency is aimed at supporting South Africa's youth by providing finance, as well as advisory services. One particular support institution, Tembeka, is solely focused on investing in SMEs with a social focus. Other support institution such as the Technology Innovation Agency is purely focused on SMEs in technology-related fields.

CONCLUSION

South Africa's precarious economic and social status quo provides a challenging environment for new and existing SMEs. Low levels of economic growth, high levels of joblessness and poverty provide a climate in which SMEs need to exist, grow and thrive. It is thus vital that existing and new SMEs receive the support they require in order to grow and become the innovators and job creators they are meant to be. This study therefore had the aim of discovering prominent South African SME support institutions, and analysing the scope of services offered.

VALUE OF RESEARCH

The findings of this study allow South African SMEs to easily identify the organisation that offers

the type of required support. The findings further raise awareness of support institutions that South African SMEs might not have been aware of, as most institutions do not publicly advertise. Due to the merger, acquisition or closure of many governmental support institutions, the research lastly provides an up-to-date snapshot of available support for South African SMEs.

LIMITATIONS OF THE RESEARCH

While a large number of private support institutions exist, many are small in size and do not publicly advertise their services. As a result, while the list of identified support institutions is comprehensive and focuses on prominent support institutions, the list cannot be deemed as all-encompassing. Furthermore, many sectors of the economy have smaller specialized support institutions which appeal to a smaller audience of SMEs for sectoral reasons. These institutions could not be included due to lack of available data and advertising.

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Systemic exclusion – barrier to effective sme development in emerging economies

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ABSTRACT

This is a conceptual paper exploring the concept of systemic exclusion and how it relates to the development of Small Medium Size (SME's) Enterprises in emerging economies. The aim of this paper was to explore the literature to determine how Social and Economic exclusion potentially impact SME development. Recently the concepts of inequality and inclusive growth have become words by governments and business alike. After closer review of the exclusion concept it seems exclusion is systemically entrenched in societies. The paper suggests that there is a level of systemic exclusion in societies that are not addressed by either governments or the financial and investment systems. Unless governments can resolve the issues that exacerbate exclusion across their societal and economic structures, their ability to develop and establish sustainable SME's in their economies will be limited. It also suggests that if the financial system is engaged and capital allocations significantly increased to address this additional level of exclusion, it could have a profound effect on economic growth. Academically, it was found that no empirical research specifically address the potential impact that exclusion may have on SME development. A conceptual model is presented.

INTRODUCTION

During an Impact Investment conference in 2014 [20], Pope Frances said: "It is urgent that governments throughout the world commit themselves to developing an international framework capable of promoting a market of high impact investments and thus combating an economy which excludes and discards."

Politicians [4][32][2] often use the words "inclusive growth" to describe their commitment to economic development in their countries. World Bank president Yi Jong Kim [27] said "These trends come at a time when we need more cooperation, greater economic integration and stronger partnerships than ever before if we want the world economy to return to higher rates of inclusive, sustainable growth." In the same speech, he stated: "Economic growth has to be more robust and more inclusive and capital investments have to grow in size and effectiveness. Ending extreme

poverty and boosting shared prosperity is our bottom line. We will achieve this by accelerating

inclusive and sustainable economic growth, investing in human capital and by fostering resilience to global shocks and threats." [36] released a report days before the Davos conference. They estimated that 8 of the world's richest billionaires own more wealth than 3.6 billion people combined. The entire report refers to the necessity of inclusive growth and development and discusses the global challenge of inequality.

If inclusiveness is so important for development, specifically in emerging and developing economies, then we should also understand exclusion in a broader sense. Exclusion as concept has been associated with social, racial, political and economic exclusion. It has also been associated with the poorest of the poor and the bottom of the pyramid (BOP), which assumes that the poorest have been excluded in most of these areas. It has also been associated with discrimination on the bases of race, gender, age, religion, education, social status, disability, political and tribal affiliations and thus they have been excluded from participating economically.

This paper identifies systemic exclusion as an additional factor that should be considered and applied within the context of exclusion. Systemic exclusion will continue to hinder economic growth across the economic spectrum and will be impacting the development of innovative SME's in emerging economies.

LITERATURE REVIEW

Definitions

Nearly half of the world's population — more than 3 billion people — live on less than \$2.50 a day. More than 1.3 billion live in extreme poverty — less than \$1.25 a day. Estimates are 2.1 billion children worldwide are living in poverty. Approximately 80% of the world population live on less than \$10 a day. [36] estimates that it would take \$60 billion annually to end extreme global poverty—that's less than 1/4 the income of the top 100 richest billionaires.

Most of these people live across emerging and developing economies. [24] explains this level of poverty is created and exacerbated by different levels of social and economic exclusion where many of these people have been disadvantaged and discriminated against.

In searching for a definition of exclusion it became clear that exclusion is primarily associated with social exclusion which is an overarching definition which includes sub-sets of exclusion. [45] defines social exclusion as a multidimensional process of progressive social rupture, detaching groups and individuals from social relations and institutions and preventing them from full participation in the normal, normatively prescribed activities of society in which they live. [38] defines social exclusion as a synonym for income poverty and refer specifically to people who are not attached to the paid labour market and is therefore excluded from the paid workforce. The concept of social exclusion is often used alongside “social cohesion” where a cohesive society is a society where political, social and economic stability is maintained and controlled by means of full participation in the paid workforce. [38] includes a second broader definition of social exclusion where it refers to much more than poverty, income inequality, deprivation or lack of employment. He defines social exclusion as “multidimensional, involving lack of resources and/or denial of social rights part of a dynamic process that result in multiple deprivations, breaking of family ties and social relationships as well as the loss of identity and purpose” [45]

Another definition for social exclusion is provided by [6] stating an “individual is socially excluded when he or she cannot participate in key activities of the society of which he or she lives.” [38] identified 15 types of exclusion namely; social marginalisation, new poverty, democratic legal/political exclusion, non-material disadvantage, exclusion from the “minimal acceptable way of life”, cultural exclusion (including race and gender), exclusion from family and the community, exclusion from the welfare state, long-term poverty, exclusion from mainstream political and economic life, poverty, state of deprivation, detachment from work relations, economic exclusion, and exclusion from the labour market [37]. It provides a good overview of the types of exclusion but this list is not exhausted.

South Africa, India, Canada and many other countries have socio-economic and political realities that exclude social groups and communities from economic participation, regardless of their attempts to establish so-called inclusive growth. In South Africa, racial discrimination is still prevalent and the caste system of India is still alive and well in 2016 regardless of the affirmative action policies that were implemented in the 90’s.

It became evident that there is another layer of exclusion of relatively large numbers of people across the social spectrum who are not necessarily from the bottom of the pyramid. They cannot access capital from Government or from the financial and investment system because they do not meet the investment criteria and mandates. Many of them developed innovative ideas and concepts but cannot get them implemented. [26] explains countries have a large percentage of their citizens who have the intent to start business enterprises. They come from all spheres of society. This is a group of people who do not necessarily earn less

than \$3.25 per day and they are educated and employed in full-time jobs. Due to systemic exclusion, they are increasingly limited from accessing available capital either from Government funded institutions or from the formal financial and investment system. These individuals, groups and communities are increasingly excluded and discarded from the system but ironically, it is this group that can potentially unlock economic growth.

Impact investment

Impact investment is defined as investments being made into companies, organisations, and funds with the intent to generate social and environmental impact alongside a financial return [17]. This market provides capital to address the world’s most pressing challenges in sectors such as sustainable agriculture, renewable energy, conservation, microfinance, and affordable and accessible basic services including housing, healthcare and education. Impact investment is a new, relatively young industry with enormous, unlimited potential for making a real difference and impact in the world. It is the best and most appropriate system within the global investment system which can engage with the challenges described in this paper.

Unfortunately, Impact investment in general is associated with only the social side of the economic spectrum and is generally under-funded and lacks sustainable economic business models.

We should approach Impact Investment from a completely different perspective if we want to have any significant, impact in the fight against poverty and inequality. We must get more capital behind it without increasing the risk for investors.

A Global Financial system

The global financial system is defined as the interplay of financial companies, regulators and institutions operating on a supranational level [13]. Furthermore, the global system is divided into regulated entities which refer to international banks, insurance companies, regulators, supervisors and institutions like the European Central Bank or the IMF. The system includes “lightly” regulated or non-regulated bodies which include hedge funds, private equity and bank sponsored entities such as off-balance sheet vehicles that banks use to invest in financial markets.

The role of the financial system is to facilitate the flow and efficient allocation of funds throughout the global economy and help create best forex trading markets. The financial market is a market in which people trade financial securities, commodities, and other items of value.

[19] refer to the requirement of financial stability post Global Financial Crisis. They unpack 5 scenarios with the objective of determining how these scenarios will preserve financial stability which is a key requirement for investors. They engage in a market that reflects volatility daily but it is this volatility which presents the investment conundrum. It is the volatility that is used to generate revenues. Investors need financial stability

because they focus on managing the risk of losing capital and the system provides relative stability.

[59] provides data on total value of stocks traded on stock exchanges globally. In 2015, \$99.76 trillion was traded on stock exchanges. [3] published a report, "A World awash with money". They found that global capital reached approximately \$600 trillion, tripling over a period of 20 years. In 2012, the total global financial assets were nearly 10 times the value of global GDP. They estimated that the total global capital will expand further to an estimated \$900 trillion by 2020, within a short period of 8 years. [17] estimates that the impact investment industry will be a \$1 trillion market by 2020, a mere 0.001% of global financial assets.

[19] indicates that global investable assets for the asset management industry will increase to more than \$100 trillion with a compound growth rate of approximately 6%. This report highlighted the necessity for asset managers to create positive social impact and should deliver a clear message that they will be a force for good, to investors and policy makers.

The explanation above provides some understanding to the vast systemic capability and real financial value of the Global financial system. It is not perfect and the latest Global Financial crises in 2009 required adjustments to governance and regulation.

Although this paper is not really about the nature and scale of the global financial system it is important to highlight that key, high level individuals involved in the global financial environment already called for the financial system to be reviewed [42][43][28][11][25] & [15]. Today, there are calls to find ways to access available capital and improve inequality.

[42] indicate that global capitalism is in crisis because it doesn't contribute to resolution of global socio-economic challenges and that the system is a major contributor to increasing inequality. It has become a major topic on the global public agenda. Some would argue that it was designed at the expense of the poor and other excluded communities but the financial system was not designed for the poor, it was designed for the middle to upper class who had money to invest. The system was designed to make money work for them and it allows millions of people to retire.

This is a complex problem which there is no simple answer to. Due to the calls from key political and religious leaders some capital has been allocated to assist with the resolution of global socio-economic challenges [20]. As a response to this call approximately 600 impact funds have been established by Private Equity funds [16]. A report published by Erasmus university showed that Institutional investors have invested €24 billion up to 2015 in Impact related investments in the Netherlands. Note that the total institutional assets under management in the Netherlands is approximately €1.4 trillion. The capital allocated to impact investment was only 0.017% of total assets under management. The report also indicated that institutional investors committed to increasing their

impact investment but the asset allocations have largely been invested into listed equity, bonds and micro loans with a very small percentage of this allocation, allocated to investments with real socio-economic impact. Given the definition of Impact investment, it presents a perfect opportunity which should be explored and developed further. A systemic, paradigm shift is necessary to allocate more capital but there is even a bigger need to create powerful global solutions which take all stakeholders needs and expectations into account.

Although commitments were made to increasing social responsible investing, not enough is done to resolve global socio-economic challenges. One needs to understand that there are global systems that are independent and reliant but philosophically different in terms of its development, design, mandate and purpose.

The author proposes that the strengths of the financial system should be utilised, without putting the financial system and investor returns at risk. It should fund higher risk environments, assisting excluded or discarded individuals, groups and communities. This may seem contradictory but it is possible to use the financial system and allow investors and intermediaries to engage with the problem without increasing their risk unnecessarily.

If we manage to resolve the systemic exclusion challenge, it may have the single biggest impact on economic growth and socio-economic development in the history of mankind.

CONCLUSION

Economies are dependent on the development and effectiveness of sustainable government, business and civil society sectors. The Global Financial System is a machine which developed over centuries with the intent to allow the owners of capital to invest at a return at the lowest possible risk. While governments and NGO's are concerned with the BOP and the expectations of citizens on the lower economical levels, the financial system is focused on creating profitable and sustainable returns so that they can continue to employ, pay taxes and contribute to society. It is important to note that these systems are completely different with unique paradigms and philosophies which lead to the development of exclusion not identified before. In addition to social exclusion, the author identified systemic exclusion which it is not part of the current financial inclusion debate. The author has anecdotal evidence that there is major potential economic value associated with a component of this excluded community. If government and business can unlock this value, it may have significant impact on the economic growth and development required to create the necessary jobs and economic development emerging economies urgently need. Ironically it is also this excluded group who are more likely to pull more people from the extremely poor, BOP level into middle class status.

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The full list of references is available upon request.

Production facility location strategies for small and medium sized sewing co-operatives to enhance operational performance

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ABSTRACT

Small manufacturing cooperatives tend to encounter challenges when making production facility location decisions. The consideration of facility location factors when making location decisions is a challenge for smaller enterprises, their decision are based on the availability of funding and infrastructure. In this project, a total census 83 funded sewing cooperatives participated. The majority of these cooperatives perceived themselves as successful because they were still in operation and receiving contracts from time to time. Incubators and facility-sharing, are strategies suggested for new sewing cooperatives, to avoid the mistakes associated with home-based business operations. Operations and green practices in sewing cooperatives would make a substantial contribution to the creation of knowledge about sewing and clothing cooperatives, given the interest of South African government to revitalize manufacturing and that of the United Nations of creating an inclusive economy through cooperatives.

Keywords – Cooperatives, Facilities and Manufacturing

I. INTRODUCTION

The re-industrialization of South Africa is key to taking lead in Africa's industrialization and revitalization. Re-industrialization is amongst the 10 pillars of South Africa's National Development Plan [1]. This is an effort to reduce unemployment in the country, which is currently at 27% and 73% being unemployed youth [2]. Unemployment among other things gives rise to crime and demotivation to participate in the economic activities. Small manufacturing enterprises are often confronted with the problem of lacking adequate production facilities which also meet their requirements [3]. Around the globe cooperatives, which are enterprises built on community principles such as sharing, equality, addressing socio-economic issues and creating opportunities; find themselves working in less favorable conditions and at times from open spaces [4]. However, successful and large worker cooperatives still inspire the upcoming cooperatives to attract resources in forms of infrastructure and machineries to deliver products and services [5]. Sewing cooperatives in numerous countries bring together and empower mostly women who are sometimes the sole providers for their families [6].

In certain instances these cooperatives are offered preferential procurement opportunities by large

business to assist them with capital resources and also to help them create production capacity [26]. The textile and clothing industry is very competitive but sewing cooperatives do not compete directly with large established brands, but sub-contract them [27]. The challenge encountered by some cooperatives is the inability to deliver quality products and timeously due to inadequate production or manufacturing facility [28]. A sewing cooperative needs production facilities to store their textile/cloths and other sewing materials, over lockers, embroiders and for setting up a packaging station [29]. Sewing is a demanding process as far as it is concerned. Space for storing packaged orders may be required or saved if a client collects on time or when the delivering is made immediately after quality check and packaging is completed [30]. Renting industrial space is expensive for smaller and start-up sewing cooperatives, which still need to work out their production outputs and targets [31]. The success of a sewing cooperative, does not only depend on the location of its production facility, but also the size of the facilities and the proximity to key resources and market plays a role as well rental rates and other factors associated with leasing industrial business premises [32]. This research study is based on 83 sewing cooperatives contracted by the Department of Social Development in Gauteng province to supply uniform for identified school learners [33]. These uniform packs are sewn by the cooperatives. These cooperatives also get other work from different clients. The United Nations insists that cooperatives have a potential for growth and are creating inclusive economy [5]. Our research objectives refer to the urgent need of developing adequate infrastructure for manufacturing cooperatives and that cooperatives should identify and evaluate business location. The objectives of this study: (1) It is to propose production facility location strategies for small sewing cooperatives (2) to present the role played by production facilities on the operational performance of sewing cooperatives. This research study has a literature review with key literature background and also presents the research methodology hypotheses, findings, recommendations, implication of this study to industrial engineering and engineering management and conclusions.

II. LITERATURE REVIEW

The role of labour intensive business operations on employment creation cannot be underestimated. Cooperatives are the types of business that offer opportunities to large numbers of people, currently 250 million people receive income directly and indirectly through cooperative [7]. The success of cooperatives relies on infrastructure and in order to reduce the facilities location problems assistance in form of constructing industrial parks is essential [8]. Certain business types, such as those in science and technology as well as the enterprise focusing on innovation they often attract business incubators. Business incubators are organizations aimed at providing infrastructure and resources towards supporting small enterprises [9]. On the same agenda of incubators towards supporting SMEs, there are University linked incubators. Which also address the need for infrastructure for selected small businesses towards the commercialization of their products and/or services [10]. In addition to business incubators as alternative business shelter for operations at start-up, Home Based Businesses (HBBs) are also predominant for smaller enterprises [11]. Production facility decision making methods include multiple objective criteria decision making model, PROMETHEE, AHP (Analytical Hierarchy Process) and FLSP (Facility Location Selection Process) [12][25]. In considering such models, an enterprise with space demanding operations considers factors such as the rental rates, physical location, electricity tariffs, labour, building/facilities and funding [13]. Rental rates refer to the cost payable by the enterprise which accepted the offer to use a particular space or facilities, small sewing cooperatives can encounter the problem of producing efficiently in capacity constrained production facilities [14]. The geographical site on which the enterprise is located plays a key role on a number of areas such as proximity to markets, resources and the quality of life in the chosen area of location depending on the type of production, benefit and cost analysis. Its impact on the surrounding community on enterprise may select its product facilities [15]. Small sewing cooperatives, dependent on an income from school uniform packs, corporate clothing and others from local business, use sewing embroidery, ironing and over locking machines powered by electricity which increases annually by a certain percentage and this tends to increase, does also impact on the production output cost, therefore an arrangement has to be made by any enterprise on energy utilities with the distributor in their home country [16]. In cooperative, the members also provide labour, which makes the labour climate more favorable as there are less challenges associated with employer-employee relationship [17]. The physical building conditions of a manufacturer are important to keep safe the raw materials, prevent damage and provide adequate shelter or a home to operations, employees and clients, which makes it important to finance [18]. The above literature explains the conceptual framework which follows in this section. The role of production facilities is essential for continuous process improvements as the processes of a

manufacturer whether small or large are housed by production facilities [19]. In the light of crime directed to small businesses, proper and safe business facilities are key to enhance operational performance [20]. A problem of the lack of adequate production facilities due to cost of leasing still has a negative impact on the operational performance of sewing cooperatives. The research question of this study is:

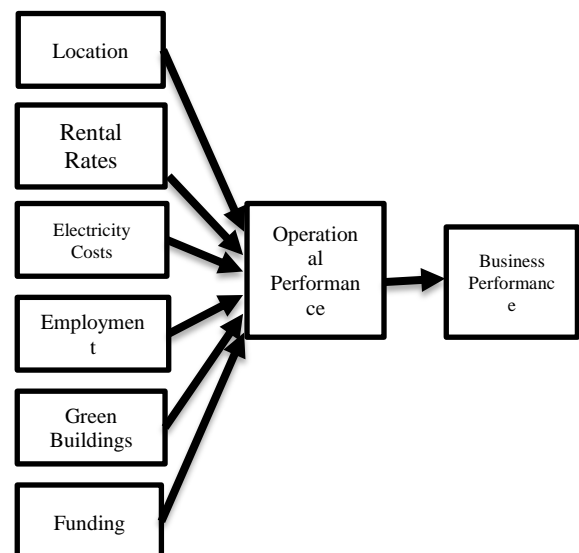
Which cost efficient production facility strategies can enhance operational performance of sewing cooperatives?

The following section is the research methodology that is the research methodology that was employed in this study, in line with attempting to answer the above research question and to reflect the research objectives of this study.

III. METHODOLOGY

In this paper, we use a quantitative research method in response to the research objective and question as well as supporting the conceptual framework which was proposed in the literature section. A pilot administration of questionnaires was done with 5 accessible funded sewing cooperatives, after establishing the language barrier, adjustments were made and language was simplified on the questionnaire surveys. The questionnaire had a Likert scale of 1 – 5. This study only focused on funded sewing cooperatives as provided from the database of the Department of Social Development. The production facilities location framework is has 5 independent variables, operational performance as a moderating variable and business performance as the

Figure: 1 Theoretical-Conceptual Framework



dependent variable. The independent variables are rental rates, electricity tariffs, employment [24], green buildings and funding. A total census of 83 funded sewing cooperatives took part in this study.

A total number of 83 respondents may also seem too small for a study such as this one.

However, it is also important to recognize that the percentage of successful co-operatives is also very small due to the harsh conditions of the business environment. This research study was conducted in the four districts of the Gauteng Province, in South Africa as elaborated further on this section. The study uses data collected from funded sewing co-operatives in Ekurhuleni, City of Johannesburg, Westrand and Sedibeng Districts as shown on the map below (municipalities.co.za).



Figure: 2 Gauteng Provincial Map of Districts

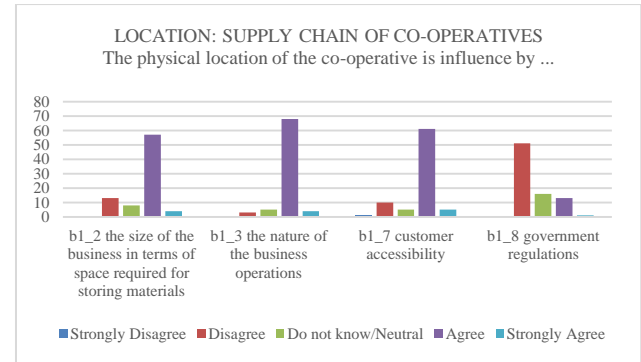
These sewing cooperatives have a direct economic impact in the province of Gauteng in South Africa given the employment created through them and they also have a potential to revitalize the textile sector of the Gauteng City Region and that of South Africa.

III. RESULTS

A larger sample would have enabled us to derive a factor analysis. However, the frequencies of the data generated enable us to provide answers to the research question raised in this study. The high involvement of women in the funded sewing cooperatives serves one of the primary objectives of the South African government, in 66 of the 83 cooperatives, 4-6 of their members are women. Out of the 83 sewing cooperatives, 37 have leased their facilities and 34 working from home based facilities [11].

Location

The location factor had ten constructs, which referred to all the areas that a business would consider when deciding on a particular geographical site of their production facilities.

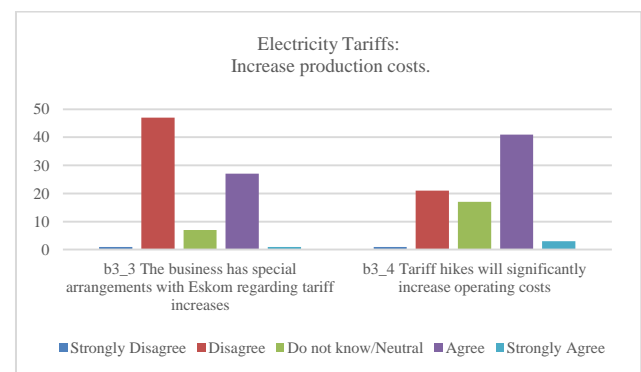


Graph 1: Location - Supply Chain Consideration

Out of the 83 cooperatives, 51 did not consider government regulations entirely when choosing a geographical site. A large majority of the cooperatives agree that they considered the proximity to suppliers, availability of buildings [21] and 65 out of 83 cooperatives agreed that the nature of their operations played a key role in the selection of their geographical site.

Rental rates & electricity

Some of the production facilities of the funded sewing cooperatives were sponsored by government and as a result, they did not incur the costs renting their manufacturing or production facilities [23].

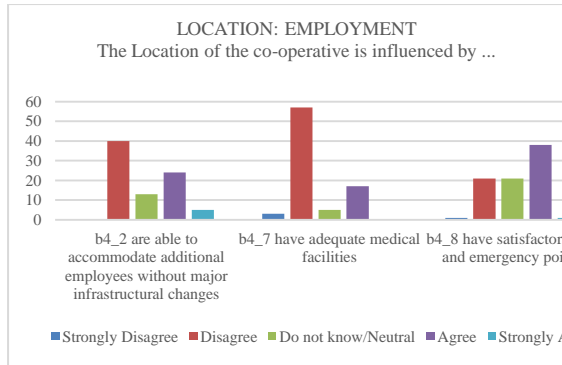


Graph 2: Location – Electricity Tariffs

Most cooperatives did not study their competitors' location, but 57 considered greatly the lease agreement. Estate agents were seen to be less important in assisting in the location decisions by over 50% of the cooperatives and they did not understand the services of estate agents in relation to production facility decisions. The hikes in electricity costs had a negative impact on the output of the cooperatives and due the nature of their operations, the hike in tariffs increased their operating costs significantly.

Employment & Green buildings

Cooperatives aim to ensure an inclusive involvement of their members, as a result, creating accessible and decent employment for the members and other professional employees is not a choice but is an obligation.

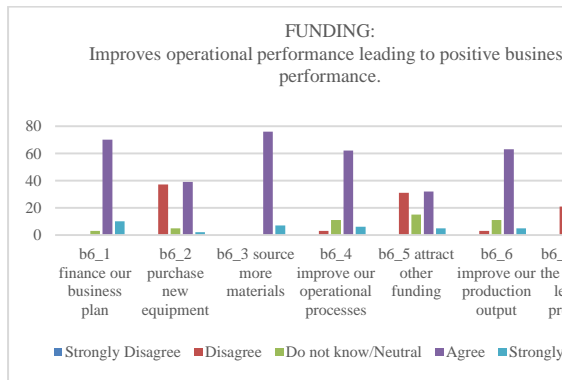


Graph 3: Location - Employment Consideration

The production facilities easily accommodated all employees for most cooperatives but lacked basic medical resources and other safety requirements. The respondents perceived their buildings as environmentally friendly due to reliance on natural light and minimal use of water [34]. However, the understanding of environmentally friendly business facilities was very poor amongst the cooperatives, resulting in a neutral response for most of the sewing cooperatives.

Funding

This study was on funded sewing cooperatives in the province of Gauteng in South Africa, comparable to Hebei Province in China. About 45 cooperatives depended on the funding provided by the Gauteng Department of Social Development to cover all costs associated with their production facilities and financing their business plans.



Graph 4: Impact of Contract Based Funding

Funding is crucial for the success of small enterprises and the availability of funding also helps creating an enabling environment for entrepreneurial activities. However, the manner in which funding is distributed to small and medium enterprises has an impact on its use. If funds are misused the enterprise being funded will cease to exist or will not take-off if it is a startup. Funding on project by project basis is a good model as the Department of Social Development in Gauteng is doing, but it does not assist the recipients of funding to improve on infrastructure such as the production facilities. Therefore, cooperatives need to redirect their expenditure to improving their production efficiency and capacity. They also need to make use of the accreditation they receive by being associated

with the Department of Social Development to attract funding for the improvement of production facilities and operations.

IV. DISCUSSION

Based on the findings of this research, it is recommended that sewing cooperatives determine and design their own location plans when they are still operating from Home Based Business operations given the challenges which can be encountered when a key member pulls out from a cooperative and not allowing it to operate from the vicinity of his or her home. We also propose that Operations Management and Industrial Management scholars and researchers should undertake action research when unearthing operations problems of sewing cooperatives as it is difficult to understand some of their issues when only doing a quantitative or basic qualitative research. Firstly, an incubation strategy during start-up may assist a cooperative in gaining the knowledge of processes in sewing, management of production and for learning the role of production facilities on performance. The second strategy would be to opt for Sharing-facilities. Cooperatives can share production space where unused and even form a secondary cooperative on the area of sharing production facilities. Lessons drawn from this study seem to propose that location has an impact on ensuring coordination of Operations, Supply Chain and Funding which leads to a successful sewing co-operative. Two of the lessons are unpacked and explained below:

Production Facility Location: This study has differentiated between production facilities and their location, and in the introduction it was made clear that this study although it differentiates the two, but it refers to both the condition of the production facilities and their location. It is essential for co-operatives to be located within the communities in which their members reside this will ensure relevance of the co-operative movement in their own societies and this also creates chances of success for a co-operative since the members of the co-operative would have an understanding of what their community needs and how much can they pay. Co-operatives in developing countries may find locating their production facilities in their own community useful in addressing community problems such as shortages of food, clothing and other utilities which a co-operative can provide.

Manufacturing (Sewing) Operations: When selecting facilities co-operatives should be prepared to make modifications and also be able to engage members to make contributions in the sewing process development and when a co-operative is already an ongoing concern it easily attracts funding and other resources. The following section is a conclusion reflecting on the entire research.

V. CONCLUSION

In conclusion, this research study could generate generalizable knowledge if a larger sample could be

used. The construction of government-funded industrial parks should make a provision for production space for small manufacturing cooperatives in the interest of revitalizing industries in S.A. and in order to create employment as well as an inclusive economy [35]. Correctly located production facilities will also enable the sewing cooperatives to attract new clients, adopt new sewing technology and also access suppliers promptly. Enforcement of work ethic among members also requires that facilities be encouraging to work from. Finally, location is a challenging decision for a small business. However, incubators offer great support, knowledge and the technical know-how which makes them attractive to offering assistance with facilities for start-up manufacturing enterprises and sharing of facilities by cooperatives is key as they serve social objectives and they may leverage one another when sharing a production facility when space is sufficient to do so; this also refers to the growing need for inter co-operative cooperation.

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The role of suppliers in promoting sustainable mining

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INTRODUCTION AND BACKGROUND

The large part of mining operations relies heavily on suppliers for their smooth running. Since suppliers potentially influence mines economically, socially and environmentally, companies increasingly demand high performance from these suppliers and in some cases have put systems in place to monitor their performance (Kumar & Chandrakar, 2012). It is not until recently that supply chains have been put under the same degree of scrutiny as the company's main units (Pereseina, Jensen & Hertz, 2014). Thus supply chain management (SCM) was mainly concerned with the efficient and responsive system of production and delivery from raw material stage to final consumer. This paper focuses on the mining industry in South Africa.

The establishment of a mine is almost certainly accompanied by distresses such as site exploitation, mine-waste residuals contamination of the environment which happen on a greater scale than in many industries (Pattanayak et.al, 2013). Mining contributes to global warming and causes health hazards resulting from the carbon dioxide and methane which are greenhouse gasses released during mining activities. Sulphur dioxide, oxide of nitrogen and carbon monoxide are harmful gases that severely cause air pollution and acid rain (Muduli & Barve, 2011). The emissions of carbon and the conservation of water are huge concerns for mines. Being huge consumers of energy and resources, mines have occasionally found themselves on a collision course with government and civil society (Lam, Ho & Choy, 2014).

With the growing concern of environmental issues and the associated regulation, supply chains have now become part of the broader debate on how industry meets the challenges of sustainability (Seitz & Wells, 2006). The attempt to address the conception of sustainability in supply chain has led to the development of various concepts such as sustainable supply chain management (Carter & Rogers, 2008), green supply chain (Kumar & Chandrakar, 2012), sustainable supply chain collaboration (Vachon & Klassen, 2006) and sustainable procurement (Leppelt, 2014). The implementation of sustainable supply chains is not without challenges. Thus the aim of the paper is to explore the role that suppliers play in promoting sustainability in supply chains. The paper is organised as follows: The next section is a literature review, followed by research methodology and the results sections. Finally, the paper concludes with

some recommendations and directions for future research.

LITERATURE REVIEW

In the past, supply chain managers faced the challenge of integrating sustainable practices in managing supply chains mainly due to pressures from several stakeholders. Today, practices such as environmentally friendly packaging, return of end-of-life and used products to the producer as well as the eco-friendly handling of these returns, recycling, remanufacturing and adequate waste disposal have assumed more importance (Barve & Muduli, 2013). Further, issues like product design, manufacturing by-products, by-products produced during product use, product life extension, product end-of-life, and recovery processes at end-of-life that may not form the core activities of the supply chain management but still have a considerable impact on overall sustainability of a supply chain should be managed utilising an integrated approach. Part of the challenge which created a barrier for manufacturing companies to implement SSCM practices remains the lack of a clear relationship between improved performance and sustainable supply chain management, has (Zhu, Sarkis & Lai, 2012).

Sustainable supply chain management requires the development of ethics and values throughout the company, a flexible and efficient "green" environment and also the alignment of the firm's strategy that focus on the development of sustainability. By doing so, the network will be protected against social and environmental risks and threats (Zailani, Jeyaraman, Vengadasan & Premkumar, 2012). Companies that have a sustainable supply chain are able to plan for, mitigate, detect, respond to, and recover from any potential international risks (Closs, Speier, Meacham, 2010). The mines are no exception in this regard.

The idea that having limited resources with continuous consumption putting increasing pressure on available resources, sustainable mining was considered a myth and far-fetched (Lins & Horwitz, 2007). Yet, sustainability of mineral resources is a considerably more multifaceted picture and involves exploration, technology, economics, social and environmental issues. According to Bonn and Fisher, (2011) more progressive scientific knowledge is able to predict future sustainability needs is required, though it will not always be easy. Sustainable mining has meant mining activities are increasingly

conducted in ways that diminishes their influence on the physical neighbouring location (Coronado & Fallon, 2010). It also means leaving the mining areas in a condition that are acceptable and usable for the future. To this end, mines have involved their suppliers to reduce the impact on the environment the mining establishments. In response, their suppliers are developing and using numerous strategies and technologies that take sustainable mining into account (Zsolnai, 2011).

Thus, supplier relationships can have a profound effect on the performance of manufacturing supply chains (Rao and Holt, 2005; Vachon and Klassen, 2006). Not surprisingly, Carter and Rogers (2008) recommend that the supplier of raw materials and components part should to some extent integrate their sustainability mind-set with the sustainability practices of the buying firms which the final customers identify with. The allocation of specific resources for joint activities to address sustainability problems is essential in sustainability collaboration. These collaborative initiatives are usually based on a high level of knowledge exchange to facilitate both sustainable products and processes (Vachon & Klassen, 2006). Sustainability collaboration manifests itself as the direct involvement of an organization with its suppliers and customers in planning and implementing joint environmental solutions (Vachon & Klassen, 2008). It signifies the company's willingness to allocate resource commitments to address suppliers' or customers' sustainability objectives (Paulraj, 2011). The environmental collaboration reflects "a good understanding of each other's responsibilities and capabilities in regard to environmental management" (Vachon & Klassen, 2008:301). Environmental collaboration is mostly concerned with designing both environmentally sound products and processes than on the short-term outcomes of the environmental efforts (Vachon & Klassen, 2008).

Increasingly suppliers perceive the need to incorporate sustainability into their business practices (Carter & Easton, 2011). The critics recommends that the supplier of raw materials and components part should to some extent integrate their sustainability mind-set with the sustainability practices of the focal firms which the final customers identify (Carter & Rogers 2008).

RESEARCH METHODOLOGY

Research approach, selection of participants and data collection

Since the aim of the present study is exploratory in nature, it adopted a qualitative research approach. Yin (2011) states that the researcher in a qualitative research aims to ascertain a deeper understanding of the management dilemma and conceptualises ways of solving them. Mining and Mineral industry. Participants in this study were selected purposively. Their selection depended on the judgement, knowledge and experience of the researchers (Cresswell & Plano Clark 2011). In this case, they were selected based on their knowledge of sustainability and supply chain management,

including an intimate knowledge of the buyer, namely the mine. For this reason, eleven (11) respondents were interviewed using semi-structured interviews. The interviews were successful in conveying an outcome of the information required. (Leppelt, 2014). These came from a variety of suppliers and industries as shown below. After interviewing the 11th respondent, there was no need for further interviews as the data saturation point had been reached.

Suppliers	Respondents
Mining Equipment	2
Engineering equipment	2
Mineral Processing equipment	3
Extraction equipment and technology	2
Transport	2

Data analysis

The research data was analysed using content analysis. The aim was to convert recorded 'raw' phenomenon into data, which was treated in essentially a scientific manner so that a body of knowledge maybe built up (Prasad, 2008). After collecting all the available data the analysis took place in which the data collected was analysed to clarify and refine statements in the research and to reveal all hidden meanings in the text. In this case data was grouped into themes using codes. Six themes emerged from the analysis of the primary data.

RESULTS

The current study identified a few areas that suppliers believe they can play a role in the promotion of sustainability in the mining industry. These are themes that emerged from the primary data collection. These include ensuring a going concern; investing in new technologies; strengthening collaboration with mines; a search for alternative sources of energy; pressure to assist the mines to comply with environmental regulations and institutionalising the culture of sustainability. These areas are discussed below.

Ensuring a going concern

The respondents indicated that for them sustainability means ensuring that their companies will exist for the next generation and that the business will continue to grow so that the business continues to add value to shareholders. A few of them further indicated that this requires them as suppliers to maintain a positive image for their companies which in turn means not harming the environment. One respondent remarked that this can be seen from some companies trying to steer away from coal and gas and stick to gold copper and platinum uranium used for nuclear power plants which are cleaner than coal.

Investing in new technologies

Some respondents associated their role towards contributing to sustainability as supplying the mines with the kind of the technology that future generation will utilise in place of those resources. The respondents further advised that sustainability of the South African industry is very important and obviously the technology being developed will assist the sustaining the industry worldwide. From the suppliers' perspective sustainability is about finding a balance between what you can achieve between a reasonable times and what can you foresee because you have to exploit the opportunity. Suppliers seem to be mainly focused on the new technology that will enable the companies to competitive and sustainable for future generation. The respondents have advised that the industry have reached a global situation where the market is very depressed which impacts the company in a negative manner. Therefore the companies needs to develop technology which will enable the company to be sustainable to provide the clients with something different in order to be competitive and for the company to grow.

Strengthening collaboration with mines

The respondents observed within the industry that is in distress the notion of sustainability will only favour big companies that have the capital compete on a global scale. Some respondents noted that building strong relationship with clients by ensuring that suppliers cater for their business requirements and needs and also follow the specification as required is vital. Yet many of them acknowledged that they don't quite involve clients (mining companies) in sustainability practices but they provide the clients with quality service and products that can lower the cost of operations.

A search for alternative sources of energy

The respondents articulated that as the consequence of the current situation of electricity supply they felt the need to save the energy and to search for alternative sources of energy and/or power. The respondents understand that since the biggest producer of minerals around the world it is very crucial to sustain the South African mining industry. The respondents admitted that the issue of the uncertainty of electricity supply and labour unrest remain some of their major concerns and threats to the sustainability of the industry. Some respondents indicated that they are in the process of developing the technology that will reduce the cost of power during the operation and mineral processing. The respondents furthermore articulated the fact that they work with many companies from local districts in an attempt to reduce the cost of power. Respondents expressed their commitment towards developing technology that is environmental friendly and energy saving.

Pressure to assist the mines to comply with environmental regulations

The respondents acknowledged that the clients (mines) are in most cases the main drivers of environmental sustainability because of the regulations that comes with the licenses to mine. The

suppliers offer the clients with solutions which can benefit the clients within the context of a specific regulation so that the respondents (suppliers) can assist the clients to comply with environmental regulations. Respondents acknowledged that failure for them (as suppliers) to comply may easily result in the client to switch to a more compliant supplier. However, respondents also noted that the key responsibility for compliance lies with the client, otherwise as suppliers they will not be in a position to force clients to follow the regulations. Respondents acknowledged that that the best they can do is to develop and supply the technology that will help mines minimise waste, produce quality products, deliver quality services and reduce energy consumption. Respondents have also admitted that in some cases they have taken it upon themselves to educate clients about the need to become sustainable since failure by the client to comply might well put suppliers out of the market.

The respondents also stated that the pressure that they receive from their clients is pushed up to their suppliers to ensure compliance across the board. Thus how they ensure that is through ensuring that the company practices or follow specific rules meaning that they follow the countries rules and regulation. The supplier are pressured to offer high quality products and services. The respondents also do deep research on the supplier to see if it's a supplier worth working with. Furthermore the contract stipulates all the necessary requirements of projects together with the regulation to make for easy control. The respondents also believes in addressing issues if the company is not happy with the supplier in offering them products that are not up to standard.

Institutionalising the culture of sustainability

Some respondents indicated that they want to make the matter of sustainability part of their culture and have begun educating/training/guiding/ their employees about the value of sustainability. They show employees how sustainability is embedded in all the phases of the company production from the design to the fabrication to the quality inspection if something is not up the standard they do not send it to site. One respondent indicated that they go to the extent of showing the employees how the company is winning clients, choose projects and also communicate the changes in the market. Generally, in terms of technology, the respondents articulated the need to emphasize the important things to employees. Respondents further stress to employees that if new technology is not developed or sold frequently the industry will be obsolete and so will the company.

DISCUSSION AND RECOMMENDATIONS

The aim of the study was to explore the role that suppliers play in promoting sustainability in supply chains. The paper has shown how, as an integral part of supply chains, suppliers can contribute towards sustainable supply chains. Based on the research findings and the literature that was reviewed the following conclusion are drawn. First, the supplier plays an active role in promoting sustainability within

the supply chain. Second, suppliers are willing to invest in new technologies provided that the buyer of such technology can use it to improve sustainability. Suppliers are also willing to go an extra mile to ensure that the buyer complies with environmental regulations. This is so especially in cases where the survival of the supplier depends on the continued existence of the buyer like in this study where suppliers of mining equipment rely on the survival of the industry. Hence, strengthening collaborations between suppliers and the mines came through as one of the major themes.

From a managerial perspective, the study shows the importance of suppliers taking the initiative in contributing towards more sustainable supply chains. This calls for understanding the economic and environmental aspects of sustainability, strengthening collaborations with the buyers, investing in new technologies, and institutionalising the notion of sustainability by ensuring that employees across the company understand the benefits of sustainability with a view to embracing its principles and practice. Further research could study supplier roles across different industries and firm locations to allow for comparison and possible wider generalisation.

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The influence of regulation and incentives, and managers' environmental attitudes on firms' environmental management. a theoretical framework

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ABSTRACT

Managerial practices regarding environmental concerns and the capability of environmental laws to hinder business competitiveness depicted Peruvian comparative weaknesses. In addition, firms' environmental management has been considered a proactive behavior and an organizational capability. This paper, based on the conjoint application of neo-institutional and the resource-based theories, and their microfoundations, will propound a theoretical framework to assess the relationship among regulation and incentives, managers' environmental attitudes, and firms' environmental management.

INTRODUCTION

Environmental issues were considered as a complex [32], opaque [32] and uncertain [2][32] field. Firms, in an institutional complex context, made decisions under incompatible and multiple institutional logics [16]. In addition, the literature acknowledged that the link between environmental performance and financial performance was not straightforward [2][14]. The literature also considered environmental management as a proactive firm behavior or strategy [21] and described sustainability as a dynamic organizational capability [7]. Proactive environmental management allowed to firms to deal with uncertainty [3], and opacity [32]. Firms also could transform environmental management in strategies and competitive advantages [3][12]. In this context, institutions and managers' attitudes have been pointed out as relevant factors [7][15][21], which explained the adoption of sustainable practices. With regard to that, authors pointed out the relevance to study this topic in developing countries [33] and in dysfunctional institutional environments [31]. A theoretical framework based on neo-institutional and resource-based theories could support researches in developing countries with institutional weakness, such as Peru.

PERUVIAN CONTEXT

Managerial practices regarding environmental concerns is one of Peruvian comparative weaknesses. Peru was ranked in the 55th position out of 61 countries with a score of 4.70 out of 10 in the item related to health, safety and environmental managerial practices, and in the 58th position of 61 countries with a score of 4.36 out of 10 in the item related to the prioritization in companies of sustainable development [19]. In addition, Peru was ranked in the 60th position out of 61 countries with a score of 4.25 out of 10 in the item related to the capability of Peruvian environmental laws to hinder business competitiveness [19].

A FRAMEWORK BASED ON NEO-INSTITUTIONAL AND RESOURCE-BASED THEORIES

The literature propounded a connectedness between neo-institutional and resource-based theories [11][17][22][23]. The relevance of specific resources and capabilities suggested by the resource-based theory was acknowledged; nonetheless, the literature remarked that this theory did not examine the social context and legitimacy, and their effects on firms' competitive advantage [23]. Concepts that emerged from both theories suggested a theoretical framework that incorporated institutions, managerial attitudes, and firms' capabilities and environmental practices.

First, the neo-institutional theory of organizations propounded that firms conformed with the pressure exerted by institutions looking for legitimacy [13] [30][31]. Through legitimacy, firms' practices were perceived as desirable, proper, and appropriate [31] and they received acceptance and endorsement [9] by social actors. Legitimacy also enabled the achievement of competitive advantage [23], and the firms' survival [31]. Institutions referred to regulative, normative, and cultural-cognitive elements that "provide stimulus, guidelines, and resources for acting as well as prohibitions and constraints on action" [27, p. 58]. Institutional pressures encompassed (a) coercive, (b) normative, and (c) mimetic social forces [13]¹. Coercive mechanisms alluded to formal and informal pressures and could "be felt as force, as persuasion, or as invitations to join in collusion" [13, p. 150]. Furthermore, the theory incorporated a separation criterion between market and non-market forces [6] and it was the base for the classification of pressures by their origins [11]. Under these concepts, regulation² and incentives were classified as non-market forces [11], and coercive pressure [33] or regulative pillar [31].

¹ Thereafter, the literature suggested an additional classification based in three pillars: (a) regulative, (b) normative, and (c) cognitive [27].

² Regulation and incentive referred to legislation, standards, and rules that include imposition and inducement elements [33]. With regard to that, regulation was a concept under debate [20]. Not only was the nature of the regulator under discussion (public, or public and private), but also the incorporation of indirect intervention [20]. Nevertheless, it commonly referred to the intervention of public-sector actors on the activities of private-sector [20].

In addition, firms' responses to institutional pressures were not only compliance or non-compliance. The meeting between different institutional logics produced a wide range of firms' responses [22][30] to deal with complexity. Institutional logics referred to "the socially constructed, historical patterns of cultural symbols and material practices, including assumptions, values, and beliefs, by which individuals and organizations provide meaning to their daily activity, organize time and space, and reproduce their lives and experiences" [30, p. 1]. In that regard, firms' institutional logics of efficiency, innovation [25], and prevention [8] sustained firm's responses to coercive institutional pressures that encompassed different practices, including environmental [11] and proactive ones. Consequently, legitimacy seeking and institutional logics supported the relationship between regulation and incentives, and environmental management

Furthermore, the neo-institutional theory propounded that institutional pressures manifest themselves in organizations' internal spheres through their members [24]. Consequently, microfoundations of the neo-institutional theory [4][26] supported the relationship between coercive institutional pressures and managers' environmental attitudes and, specifically, the concept of sense-making³. Sense-making referred to a social process that allow people "to understand situations, notions of appropriate action, and even themselves by articulation them with others" [26, p. 88].

Second, the resource-based theory predicted firms' environmental responses based on firms' resources and capabilities [5]. These resources and capabilities were the foundation of firms' competitive advantage [5][17]. This theory conceived environmental management as a proactive firms' practice or strategy [3][8][21] and dynamic capability [3][10]. As a dynamic capability, the proactive environmental management depended on the integration of other firms' capabilities [10] such as managerial dynamic capabilities [1][18]. In this context, the concept of managerial dynamic capabilities [1][18] supported the relationship between managers' environmental attitudes and environmental management. The microfoundations of the resource-based theory remarked the relevance of managerial cognition in relation to capabilities and resources development [18]. Specifically, the study of the micro foundations of this theory included the managers' role and human capital [5] and highlighted the relevance of managers'

dynamic capabilities [1] [18]. This approach encompassed three main concepts: (a) managerial cognition, (b) managerial social capital, and (c) human capital [18]. The concept of managerial cognition considered that differences in managers' cognition and interpretations explained the heterogeneity in firms' responses [18]. Moreover, this approach suggested that managers' interpretations and beliefs [18] influenced the adoption of firms' practices. Not only did individuals give sense to environmental opportunities and threats, but also they sized opportunities and configured organizational responses [29]. Individuals with positive interpretations and beliefs [18] developed firms' proactive environmental responses [28] aiming to gain firms' competitive advantages [5] [17]. Concerning to that, dynamic managerial capabilities referred to "the capabilities with which managers build, integrate, and reconfigure organizational resources and competences" [1, p.1012]

CONCLUSION

The theoretical framework supported by neo-institutional and resource-based theories, and their connectedness, propounds the existence of direct and indirect influence of regulation and incentive on firms' environmental management. Managers' environmental attitudes partially mediate this relationship. Concepts of legitimacy seeking, sense-making, institutional logics—from the neo-institutional theory—, and dynamic managerial capabilities—from the neo-institutional theory—offer sustenance to the theoretical framework. This framework could guide empirical researches in developing countries with institutional weaknesses, such as Peru.

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³ The dynamic capabilities approach of the resource-based view theory also mentioned process of sense-making and the relevance of organizational ecosystem [29]. Nevertheless, the framework of this theory was focused on "gathering and filtering technological, market, and competitive information from both inside and out-side the enterprise, making sense of it, and figuring out implications for action" [29, p. 1326].

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Limitations of the Theory of Planned Behavior in the Explanation of Firms' Environmental Management

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ABSTRACT

Firms' environmental management has been considered as a proactive behavior and an organizational capability. In addition, the literature acknowledged (a) the relevance of manager's in the development of firms' capabilities and (b) the influence of institutional factors in firms' environmental management. Regarding that, the theory of planned behavior has been extended and utilized to explain firms' environmental management in models that included managers' individual attributes and institutional factors. This paper, based on the limitations of this theory, will propound that conjoint application of neo-institutional and resource-based theories, and their microfoundations, depicted also a feasible framework to explain this phenomenon.

INTRODUCTION

The literature has considered that "environmental challenge will be one of the central issues of the 21st century" [8, p. 38] for managers, who have to deal with this issue under the lens of efficiency and effectiveness. The relevance of this topic generated different theoretical approaches and provided empirical evidence of the factors that influence the firms' adoption of pro-environmental practices. Among them, the literature pointed out institutions [24][31][32] and environmental attitudes [15][26]. With regard to that, institutions were conceived as "regulative, normative, and cultural-cognitive elements that, together with associated activities and resources, provide stability and meaning to social life" [28, p. 56]. Environmental attitudes, on its behalf, meant "a psychological tendency expressed by evaluating the natural environment with some degree of favour or disfavour" [20, p. 143]; thus, in the managerial field, they are able to express an individual motivation "to behave in an environmentally responsible way, especially when environmental decisions involve tradeoffs between incomplete information and complicated technical and social causations" [26]. In this context, two different approaches emerged to explain the phenomena. One of them was underpinned in social psychology and utilized the theory of planned behavior, among others; whereas the second one was built over management theories and their linkages.

THE SCOPE OF THE THEORY OF PLANNED BEHAVIOR (TPB)

The theory of planned behavior, which was an extension of the theory of the reasoned action, propounded that intentions were predictors of human behavior and postulated that attitudes, subjective

norms, and perceived behavioral control predicted intentions [16].

The literature utilized the theory of planned behavior to explain both individual [10][12] and firm level environmental behavior [11][22][30]. With reference to that, empirical applications of the theory of planned behavior included both institutions and attitudes into the model. One of these empirical studies propounded that managers' attitudes toward pollution reduction had influence on managers' intentions to reduce pollution [10]. This study also suggested that environmental managers' assessment of subjective norms about environmental regulation were positively related to their preference to implement source reduction activities [10]. The study had an individual level of analysis and obtained support for its hypothesis [10].

Thereafter, empirical studies utilized the theory of planned behavior to explain firms' environmental management. As an example, one of these studies assessed the influence of managers' attitudes, subjective norms, and perceptions of internal and external stakeholders on firms' adoption of environmental management systems [11]. All the hypotheses were accepted and it was found that the stronger relationship was between social norms and environmental management programs [11]. Nevertheless, the theory of planned behavior explained human social behavior [2][3][4][16], which was the dependent variable of the whole model. The scope of the theory, which was to explain human social behavior, was a response to (a) the main concern of their authors and (b) the discipline where it was embedded. Regarding the first point, the literature mentioned that before of this theory, the literature pointed out that each class of human social behavior required different explanatory variables [16]. On the contrary, the theory of planned behavior, based on concepts of social psychology [2][16], offered the idea that different human social behaviors could be explained based on a precise group of variables, arguing that "human social behavior is really not that complicated, that people approach different kinds of behavior in much the same way, and that the same limited set of constructs can be applied to predict and understand any behavior of interest" [16, p.2]. There was not an extension of this theory to firms' behavior or firms' practices, neither in the early formulation of the theory [2][16] nor in its subsequent reviews [3][4]. Consequently, a theoretical development that extended the theory of planned behavior to a firm or organizational level was not found.

Furthermore, there was not an agreement among empirical inquiries about the support behind the extension of the theory of planned behavior to a firm level. Some additional studies applied the theory directly [22], without further theoretical sustenance related to the level of the dependent variable. Other inquiries sustained their propositions in additional theories, such as upper echelon one [30], or “modify the theory of planned behavior to fit the business context and the specific objectives” [26, p. 42] of the study. However, above all, these empirical findings did not deal with the main innovation of the theory of planned behavior, which was to propound that the prediction of a specific behavior was not complex and could be based on a limited set of factors [16]. In addition, this inquiries were not able to consider some relevant topics in their interpretation of reality, such as legitimacy or the interaction between agency and structure¹, issues studied under the neo-institutional theory [18][28]. Furthermore, these studies did not offer approaches to firms’ competitive advantages founded on concepts of internal resources and capabilities, which was the main concern of the resource-based theory [6].

THE SCOPE AND CONNECTEDNESS OF NEO-INSTITUTIONAL AND RESOURCE-BASED THEORIES

On the other hand, the focus of neo-institutional and resource-based theories, including the natural resourced-based view, was to explain organizational level phenomena [6][13][19]. Regarding the neo-institutional theory, the literature emphasized that “a central claim is to understand the organizing of collective efforts” [23, p. 1222], where organizations are “socially constructed phenomenon that has been endowed with agency and considerable power” [23, p. 1223]. Likewise, inquiries remarked the relevance of resource-based theory to explain organizations [7]. Moreover, these theories allowed to explain the influence of structure and agency [21][25] on firms’ practices, and their interactions.

Furthermore, the connectedness between the neo-institutional and resource-based theories found support in the literature [14][25][32]. This situation, where explanations of firms’ level phenomena founded on different theoretical approaches coexisted, was admitted and promoted by the literature. The literature remarked the multidisciplinary character of strategic management and mentioned that one of the ways to reduce this theoretical pluralism was to “Identify and promoting theoretical developments and empirical analysis that subsume and integrate multiple theoretical steams” [14, p. 11]; moreover, an inquiry based on both neo-

institutional and resource-based theories was acknowledged as an example of this perspective [11].

In this context, the relationship between institutions and firms’ practices obtained support in the neo-institutional theory, under its concepts of legitimacy and institutional logics. Legitimacy was sustained on “actors’ perceptions of the organization, as a judgement with respect to the organization, or as the behavioral consequences of perceptions and judgement, manifested in actors’ action-‘acceptance’, ‘endorsement’, and so forth” [9, p. 152]. On its behalf, institutional logics were “the socially constructed, historical patterns of cultural symbols and material practices, including assumptions, values, and beliefs, by which individuals and organizations provide meaning to their daily activity, organize time and space, and reproduce their lives and experiences” [29, p. 1].

Moreover, the microfoundations of neo-institutional and resource-based theories [17] could support the inclusion of managers’ environmental attitudes in the explanation of firms’ environmental practices. Microfoundations focused “on applying individual-level concepts, such as cognition and learning, to the firm level” [5, p. 138] analysis of phenomenon. In addition, concepts of sense-making [27], proposed by of neo-institutional theory, and dynamic managerial capabilities [1], from the resource-based theory, completed the explanation of the firm level phenomenon.

CONCLUSION

An explanation of firms’ behavior that included institutional and managers’ attributes brought issues that emerged from the interaction of structure and agency, microfoundations, and firms’ capabilities. These topics were analyzed and interpreted by both neo-institutional and resource-based theories. In spite of the relevance of theory of planned behavior in the explanation of human social behavior, it lacked the theoretical extension that allowed to find the justification of firms’ behavior.

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¹ A possible approach to the interaction between agency and structure could emerged from the study of feedback loop between behavior and social norms. With regard to that, the literature remarked that the theory did not neglect these feedbacks loops [4]; nevertheless, the theory did not study in depth this topic or propound an explanation of social change based on the interaction between agency and social structure.

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